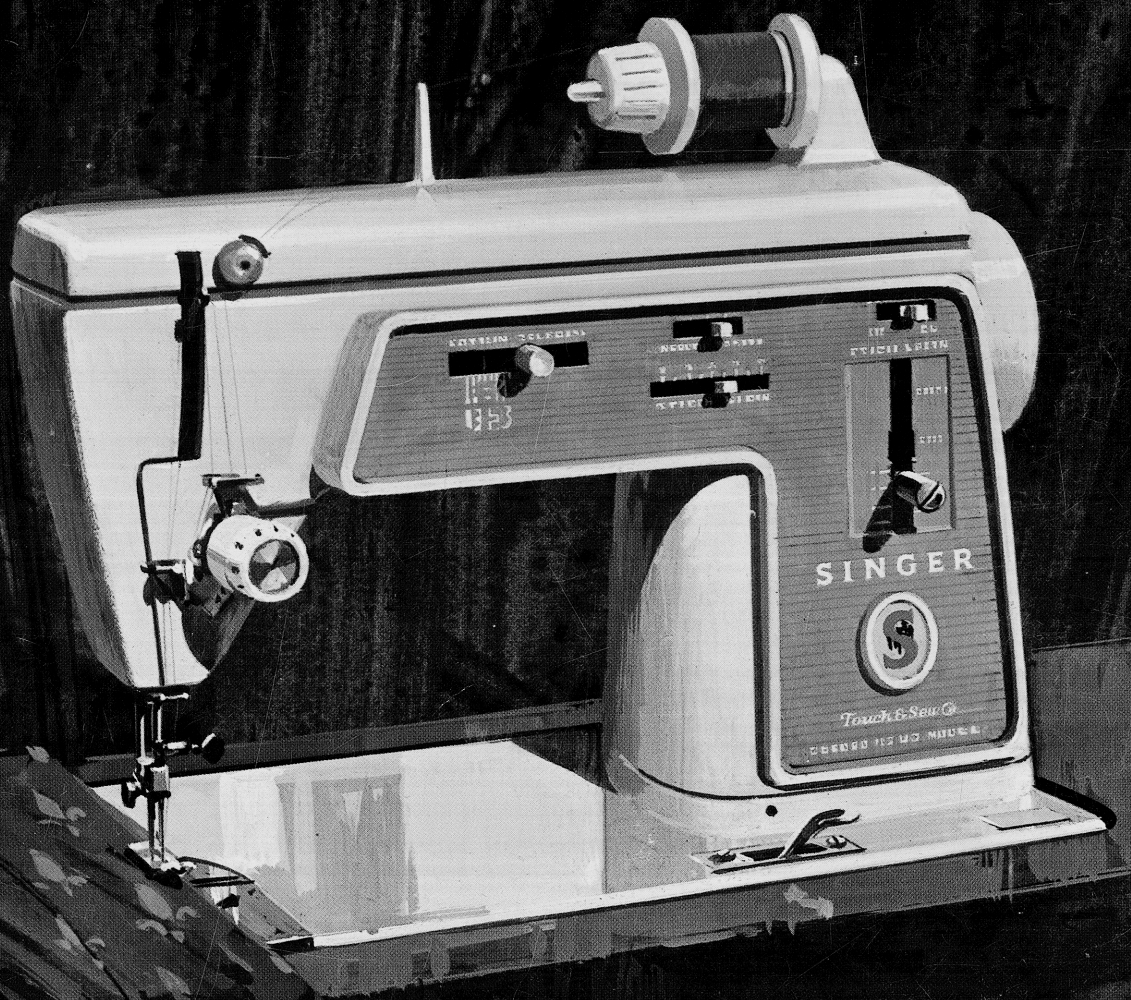
SINGER

Instructions

Touch & Sew

Special Zig-Zag Sewing Machine Model 626



What's new for tomorrow is at SINGER *today!**

The *Touch & Sew*® Special Zig-Zag Sewing Machine by **SINGER***

You are about to enter the enchanted world of custom sewing. Now you can create the elegant effects endlessly sought after by the world's most sophisticated women. And, it's so easy with all of the exclusive SINGER features. Each one is meticulously designed with ease of sewing in mind.

- *Exclusive Push-Button Bobbin* lets you wind and rewind your bobbin while it stays right in the machine.
- *Exclusive Set-A-Pattern* makes it easy to select either straight or decorative stitches. You can create numerous variations of patterns and designs with one or two needles . . . all without ever changing a disc.
- *Exclusive Built-in Threading Chart* keeps an easy-to-follow diagram at your fingertips.
- *Exclusive Friction-Free Spool Holder* with horizontal pin holds spools stationary so the thread flows freely to the needle without tug or drag.
- *Exclusive Single-Thread Chainstitching* holds firmly or pulls out in seconds as needed, does away with most hand basting so you save lots of precious time. It's ideal for any sort of temporary stitching.

Your SINGER sewing machine is the key to your sewing success when used properly. To achieve professional results, SINGER suggests you sit down at your machine before you start to sew and go through this book step by step. You'll discover all the many advantages of sewing with your *Touch & Sew* sewing machine.

SINGER* Service is always close at hand. If your sewing machine should need servicing, call your local SINGER CENTER to be sure of warranted SINGER Parts and Service. You will find the address under THE SINGER COMPANY in the telephone directory.

Form 21626 (966)

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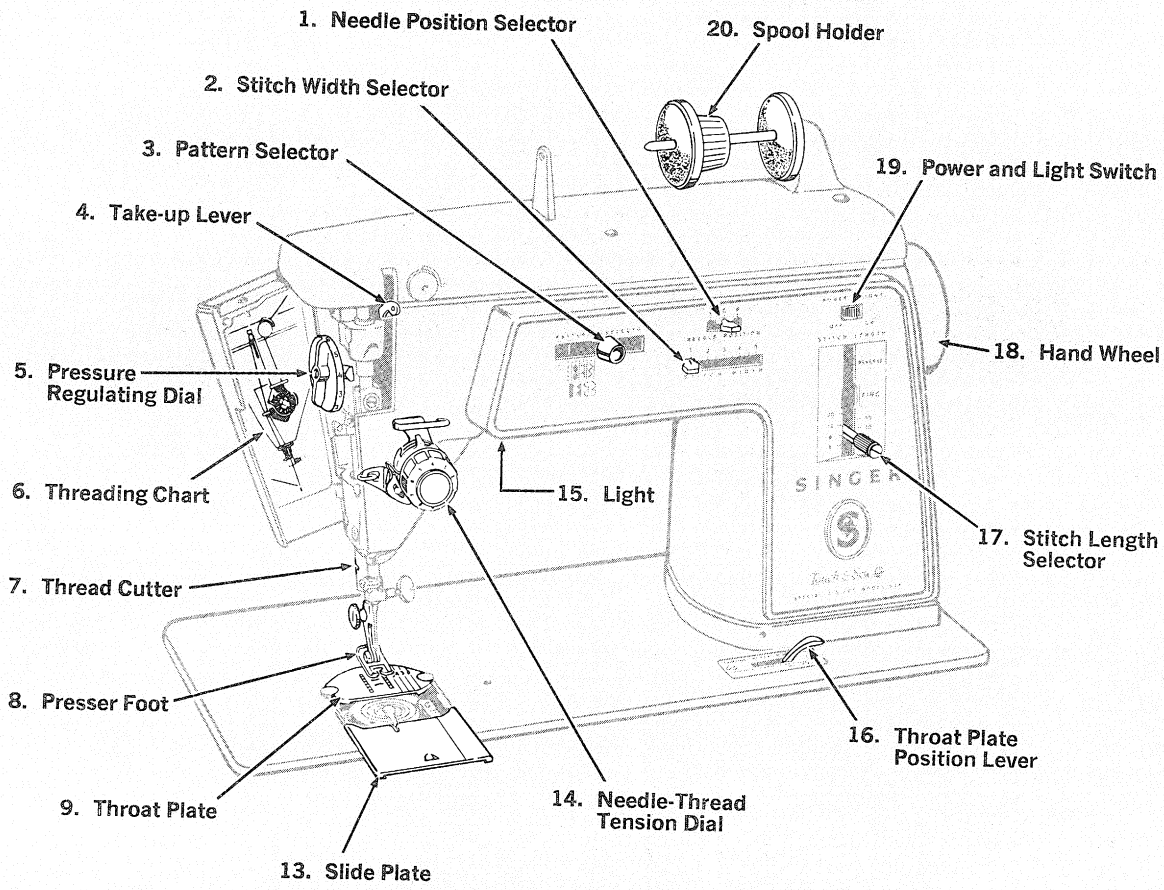
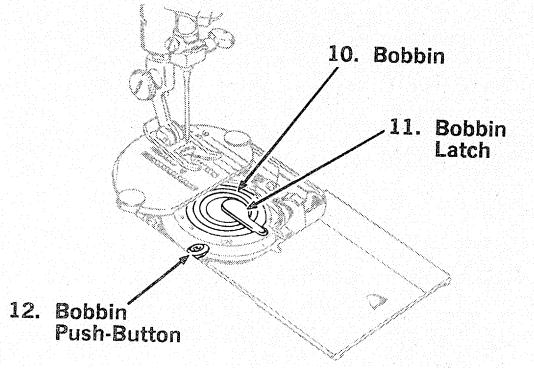
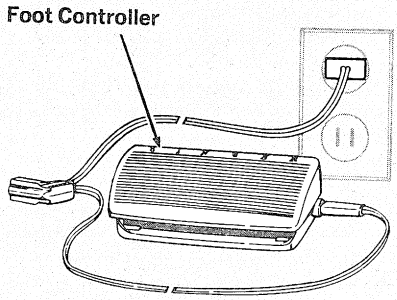
1. GETTING TO KNOW YOUR SINGER

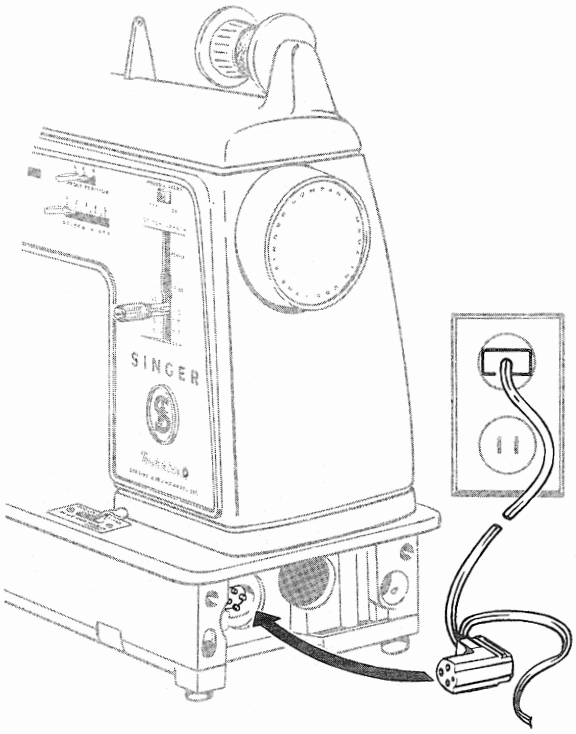






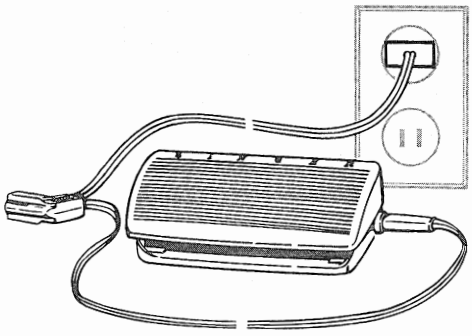
principal parts—what they are called

1. **Needle Position Selector** allows for placement of both straight and zig-zag stitching in either left, center, or right needle position.
2. **Stitch Width Selector** allows for variety of stitch widths, as well as straight stitching.
3. **Pattern Selector** with illustrated settings allows for easy selection of seven decorative stitches, and straight stitching.
4. **Take-up Lever.**
5. **Pressure Regulating Dial** has eight numbered settings (from low for light pressure to high for heavy) and special setting for darning.
6. **Threading Chart** on swing-open face plate is convenient, easy to read.
7. **Thread Cutter** built into presser bar is designed for safety, convenience.
8. **Presser Foot** holds fabric against feed dog. (Presser Foot Lifter at back of machine, not shown, allows you to raise and lower Presser Foot.)
9. **Elevator-Type Throat Plate** is easily placed in any of three sewing positions: REGULAR, FINE, DARN; and UNLOCK position for easy removal.
10. **Transparent Bobbin** shows thread supply. Two halves can be unscrewed to remove unwanted thread.
11. **Bobbin Latch** flips up at a touch of your finger.
12. **Bobbin Push-Button** allows you to switch from sewing to bobbin winding without removing bobbin.
13. **Slide Plate** opens easily, lets you see bobbin. Automatically releases bobbin push-button from winding to sewing position when closed.
14. **Needle-Thread Tension Dial** allows for exact settings.
15. **Built-in Sewing Light** pours light on sewing area.
16. **Throat Plate Position Lever.**
17. **Stitch Length Selector** allows for variety of stitch lengths including FINE for zig-zag satin stitching.
18. **Hand Wheel** controls take-up lever. Always turn it toward you.
19. **Power and Light Switch** turns on machine and sewing light simultaneously.
20. **Friction-Free Spool Holder.** Horizontal pin holds spools of various sizes; holders let thread unwind without tug or drag. The spool does *not* turn.
21. **Electrical Connections and Foot Controller** are designed for your convenience and safety.



Electrical Connections

Power and Light Switch



Foot Controller

principal parts— how they are used

1. TO CONNECT MACHINE

Before plugging in your machine, be sure that the voltage and number of cycles stamped on the four-pin receptacle are within the range marked on the electric meter installed by your power company.

Push the four-hole plug onto the four pins at the right end of the machine. Then connect the two-pin plug to your electrical outlet.

2. TO TURN ON MACHINE AND LIGHT; CONTROL SPEED; TURN OFF MACHINE AND LIGHT.

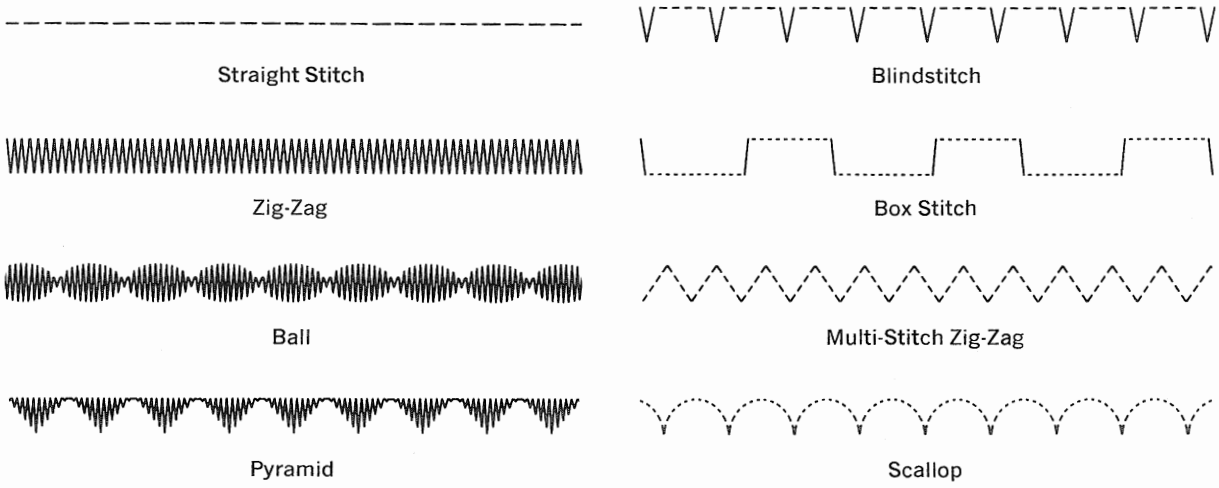
To turn on both the machine and the sewing light, slide the Power and Light Switch to ON position.

To run the machine and control speed, press the foot controller (or knee lever). The harder you press, the faster the machine will sew.

To turn off both the machine and the light, return the Power and Light Switch to the OFF position.

This unique electrical system offers several advantages: you see at a glance when the machine is ON or OFF by means of the light; you can turn off the power with the convenient switch instead of having to unplug the machine; and since the Power and Light Switch must be turned on before the machine will start, there is less chance of "little hands or feet" accidentally pressing the Foot Controller (or Knee Lever) and starting the machine.

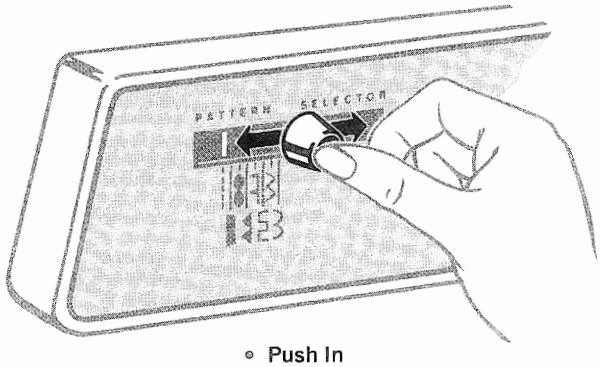
Stitch Patterns



3. TO SET STITCH PATTERNS

The Pattern Selector offers you a choice among seven decorative and practical stitch patterns in addition to the straight stitch.

To select a pattern, push selector button in and slide either left or right to bring indicator line to desired setting. Release button.



- Push In
- Slide
- Release

Stitch Pattern Selector

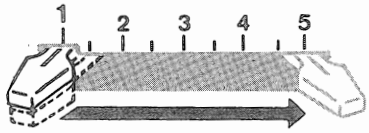
4. TO SET STITCH WIDTH

The Stitch Width Selector does two jobs: it sets the machine for bobbin winding and straight stitching, and it controls the stitch width in zig-zag stitching.

- Straight Stitch Setting: 1
- Zig-Zag Width Setting: 2 to 5

Bobbin Winding and Straight Stitching: Set selector at straight stitch position 1.

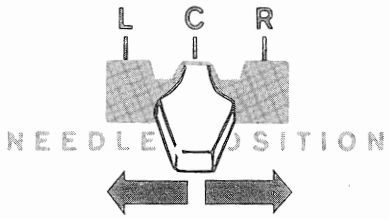
Zig-Zag Stitching: First be sure you set the Pattern Selector (see instructions above). Then set selector at any position between 2 (narrow) and 5 (wide).



- Press Down
- Slide
- Release

Stitch Width Selector

Needle Position Selector



- Press Down
- Slide
- Release

5. TO SET NEEDLE POSITION

The Needle Position Selector places the needle in either left, center, or right stitching position. You will need to set it for bobbin winding as well as for straight or zig-zag stitching.

Before moving selector, be sure that needle is out of the fabric.

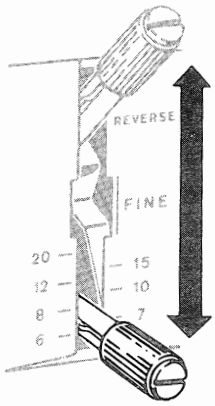
Bobbin Winding: Always set selector at C.

Straight Stitching: Set selector at C.

Zig-Zag Stitching: You will use C position most often; L and R settings are for special stitch placement. For example: L setting is required for buttonholes, button sewing, and two-needle work. L or R setting is used to place narrow zig-zag stitching to the left or right of center in decorative work.

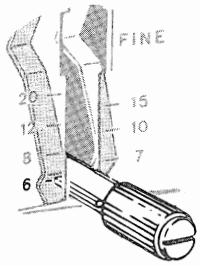
Stitch Length Selector

Reverse



Forward

Locked Setting



Thumb Nut

To Loosen

To Tighten

6. TO SET STITCH LENGTH

The Stitch Length Selector does two jobs, which in this case are common to both straight and zig-zag stitching: it controls the length of stitches and the direction of stitching (either forward or reverse).

The numbers on either side of the lever represent the number of stitches per inch: *the higher the number, the shorter the stitch.* Generally, shorter stitches are best for lightweight fabric; longer ones for heavy fabric. The FINE area, which represents over 20 stitches per inch, is used for zig-zag stitching.

To Set Selector

- Loosen thumb nut by turning to left.
- Position lever for desired stitch length.
- Tighten thumb nut by turning to right.

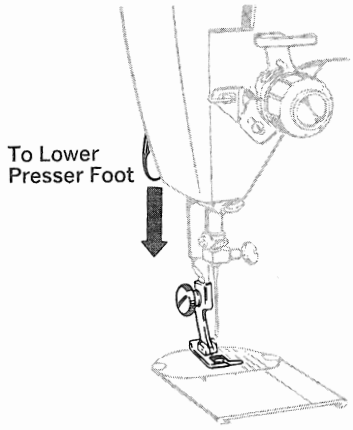
For reverse stitching, simply raise lever as far as it will go. Do not loosen the thumb nut to reverse unless you are using the No. 6 setting, in the very bottom position.

7. TO REGULATE PRESSURE

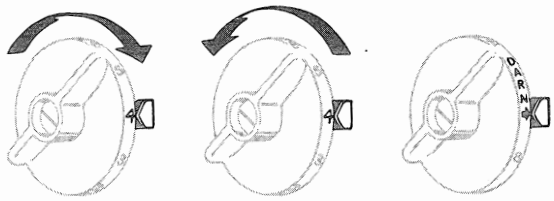
The Pressure Regulating Dial regulates the pressure that the presser foot exerts on the fabric. Correct pressure is important because it means fabric feeds smoothly, evenly, without being marred. Generally, heavy fabric requires a high number setting; lightweight fabric requires a low number setting. But fabric texture must also be considered; soft fabrics, for example, require less pressure than crisp fabrics.

Lower the presser foot before setting.

- **To increase** pressure, turn dial to higher number.
- **To decrease** pressure, turn dial to lower number.
- **For darning,** turn dial to **DARN,** which releases pressure and permits darning without an embroidery hoop.



Pressure Dial



Increase Decrease Darning

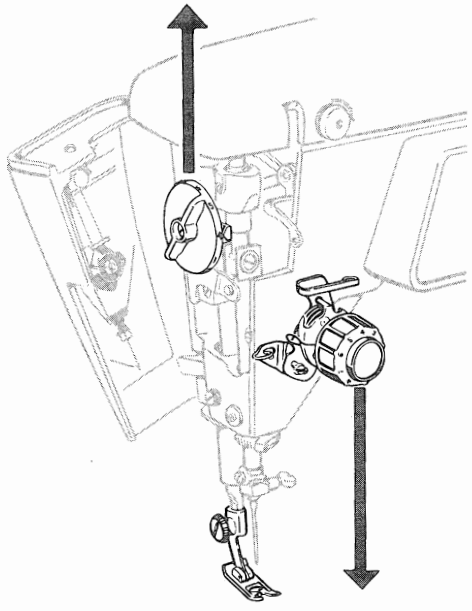
8. TO REGULATE NEEDLE-THREAD TENSION

The Needle-Thread Tension Dial regulates the degree of tension on your needle thread and lets you select just the right setting for your stitch pattern, thread, and fabric. The numbers eliminate guesswork in duplicating settings.

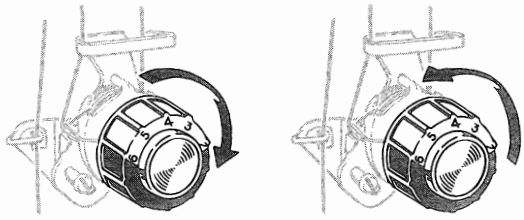
Correct tension is important because too much or too little will weaken your seams or mar the appearance of decorative work. To determine correct tension setting, make a test on a sample of your fabric. If the fabric puckers, decrease tension. If the stitches look loose, increase tension. (For detailed instructions on adjusting zig-zag stitch tension, see page 25.)

- **To increase** tension, turn to higher number.
- **To decrease** tension, turn to lower number.

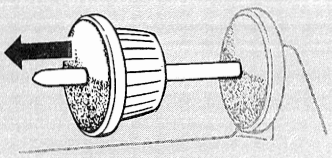
Note: This dial governs needle-thread tension only. Bobbin-thread tension has been correctly set at the factory, and you do not need to adjust it.



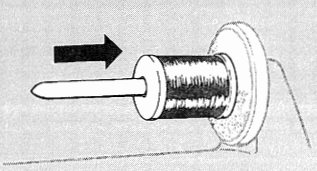
Tension Dial



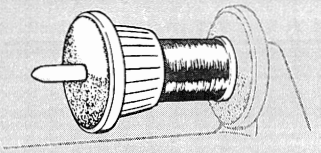
Increase Decrease



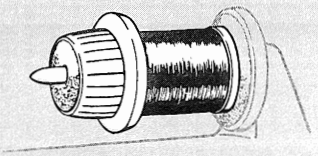
Remove spool holder from spindle by sliding it to the left.



Slip spool of thread onto spindle.

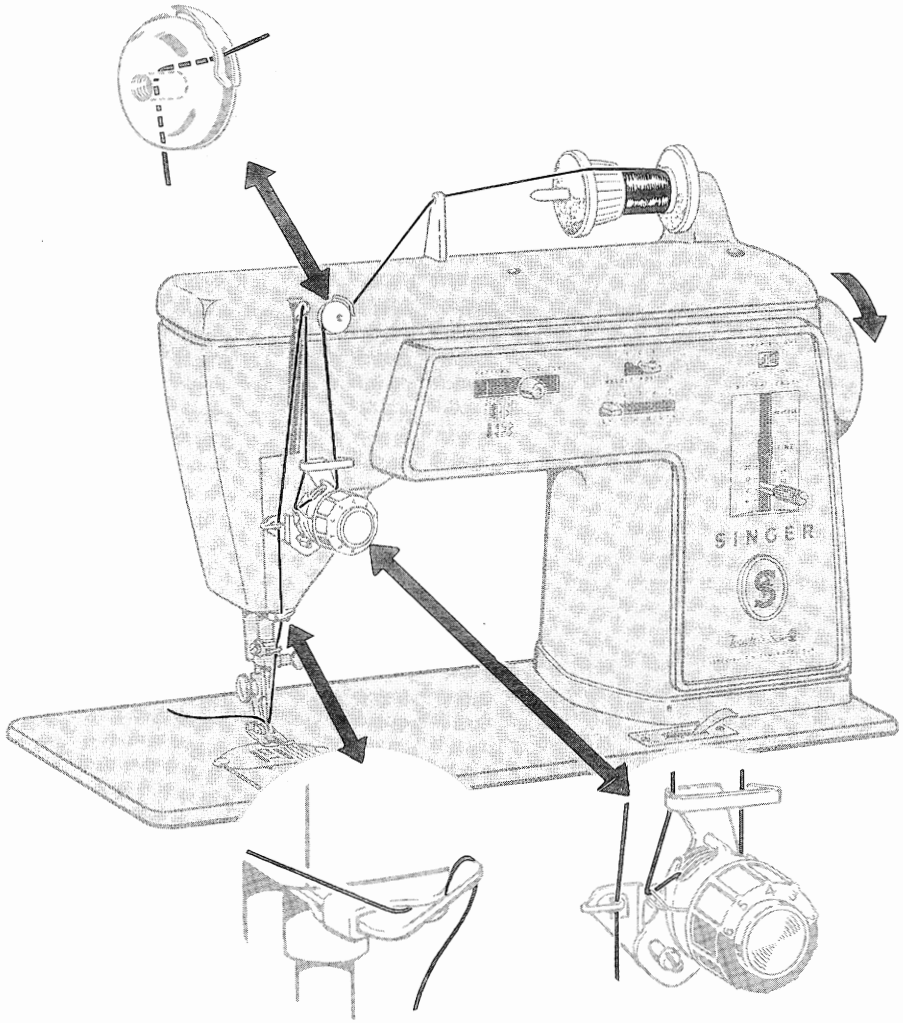


To hold small spools — Turn **small** end of spool holder to the right and slide onto spindle. Press spool holder firmly against spool.



To hold large spools — Turn **wide** end of spool holder to the right and slide onto spindle. Press spool holder firmly against spool.

9. TO THREAD THE NEEDLE



1. Turn hand wheel to raise take-up lever to its highest position.
2. Raise the presser foot.
3. Lead thread through all threading points as shown.
4. Thread needle from front to back, drawing about four inches of thread through eye of needle.

10. TO WIND THE BOBBIN

The Push-Button Bobbin will make your sewing go faster than ever before — whether you are using a lot of one kind of thread or small quantities of different threads, as you are likely to do when mending or darning.

You will find a bobbin already in place in your machine, located under the slide plate. (To open slide plate, simply slide it gently toward you.) Notice the white rings on the bobbin. Each ring represents an approximate yardage of No. 50 Mercerized cotton thread. The third, or outer ring, marks the full limit of the bobbin and you should *never wind beyond that ring*. If you are using fine thread, yardage on the bobbin will be greater. If you use thread heavier than No. 50, the yardage will, of course, be less.

The bobbin is ready for winding as you find it in the machine. If the bobbin runs out of thread while you are sewing, you can rewind it without removing it from the machine.

Preparation Steps

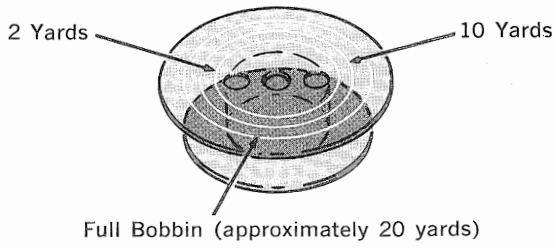
1. Use General Purpose or Straight Stitch Presser Foot. The General Purpose Foot is in place when the machine is delivered to you.
2. Raise presser foot to release tension on thread.
3. Turn hand wheel toward you to raise take-up lever to highest point.
4. Open slide plate.
5. Make sure bobbin is empty. (For instructions on removing bobbin and thread, see next page.)
6. Set Pattern Selector at Straight Stitch, Stitch Width Selector at **1**, and Needle Position at **C**.

Winding Steps

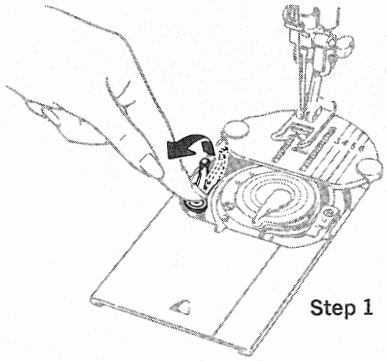
1. Press bobbin push-button toward you.
2. Wrap thread around presser foot screw, and hold end of thread firmly.
3. Start the machine.

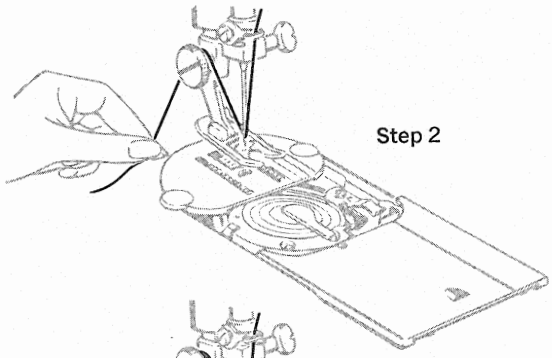
- Run the machine at a moderate speed.
- Pull thread end away after a few coils have been wound.
- Keep your eye on the bobbin and fill with desired quantity of thread. *Do not allow thread to wind beyond FULL ring.*

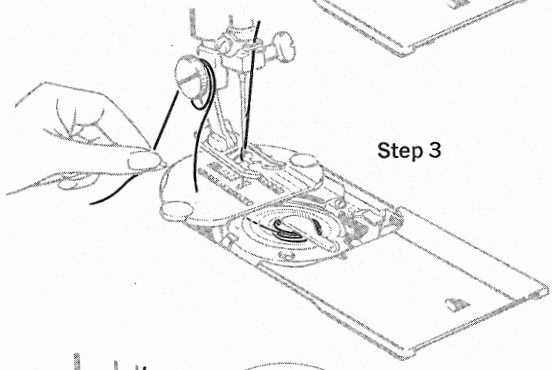
4. Close slide plate to release push-button. (For instructions on starting to sew with a newly wound bobbin, see page 19.)

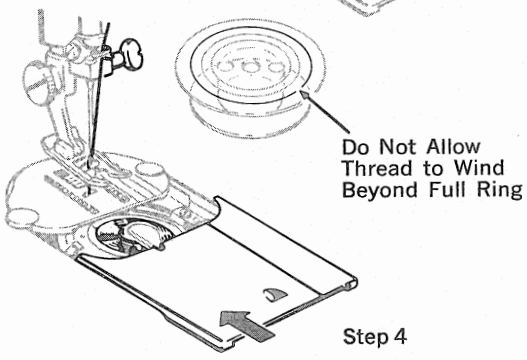


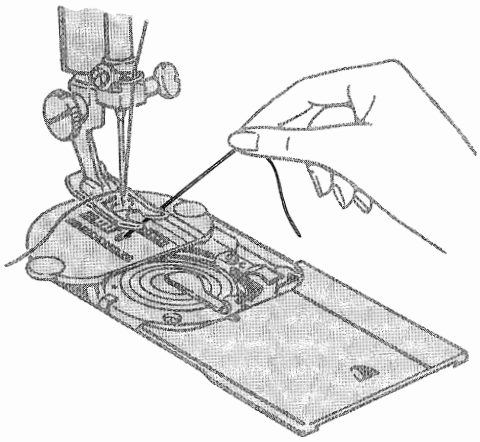
Winding Steps



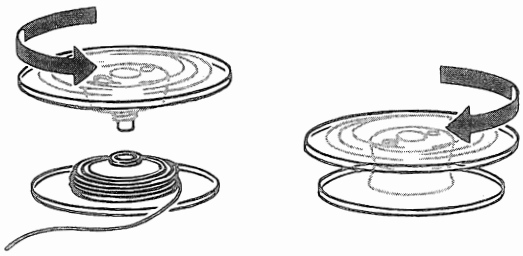








To Remove Short Thread, Pull Through Throat Plate



To Remove Long Thread, Unscrew Two Halves of Bobbin

To Remove Thread

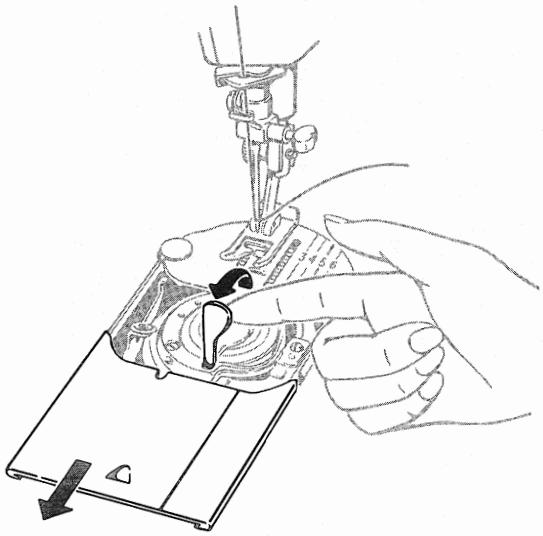
Thread can be removed from the bobbin in either of two ways. If there is not much thread left on the bobbin, simply pull the thread end through the throat plate.

If there is a lot of thread left, remove the bobbin (as illustrated below), unscrew the two halves, and remove all the thread at once.

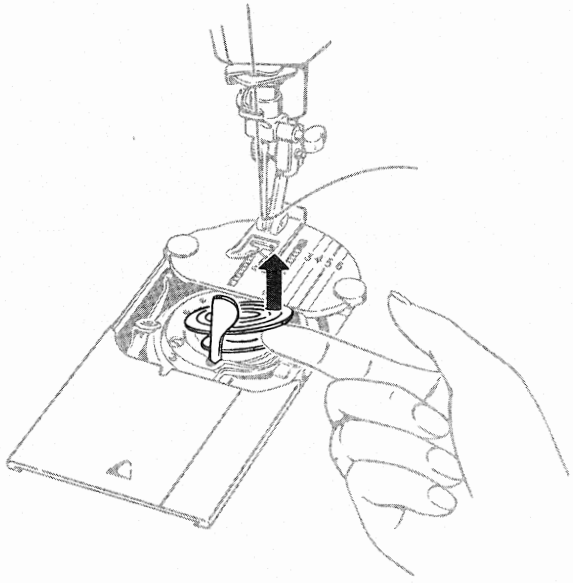
To Remove Bobbin

1. Turn hand wheel to raise take-up lever to its highest position.
2. Open slide plate; leave bobbin push-button in sewing position.
3. Raise bobbin latch by inserting fingernail under end of latch at center of bobbin.
4. Insert fingernail under rim of bobbin immediately to right of latch and remove bobbin.

To Remove Bobbin



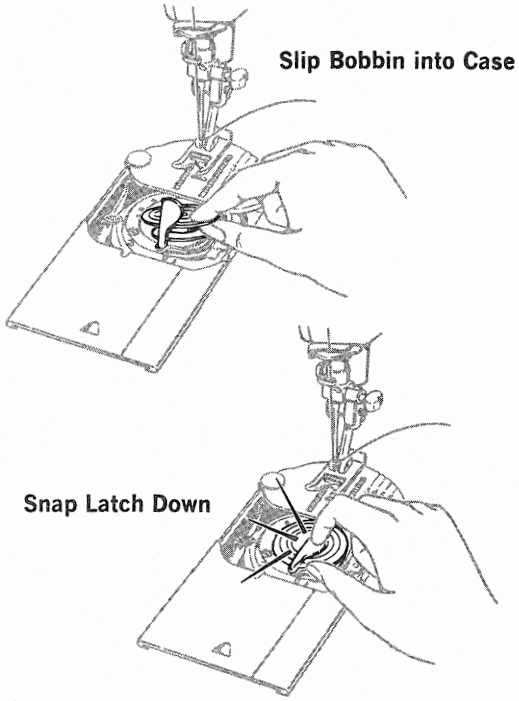
Open Slide Plate and Raise Latch



Lift Out Bobbin

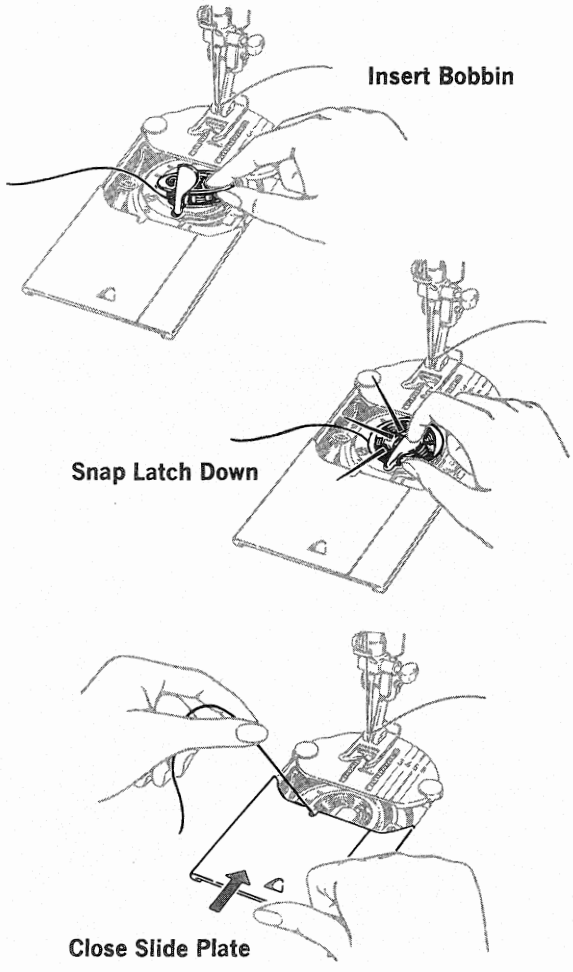
To Replace an Empty Bobbin

1. Tighten bobbin halves securely.
2. With latch raised, slip bobbin (wide side up) into bobbin case.
3. Snap latch down to secure bobbin.
4. Leave the slide plate open until you have finished winding.



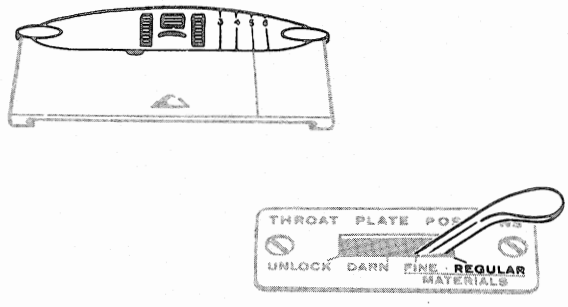
To Insert a Previously Wound Bobbin

1. Open slide plate; leave bobbin push-button in sewing position.
2. Turn hand wheel to raise take-up lever to its highest position.
3. Draw three or four inches of thread from bobbin and place bobbin in case with thread leading off to left side of latch.
4. Snap latch down to secure bobbin.
5. Close slide plate, allowing the thread to enter the notch. (For instructions on starting to sew with a previously wound bobbin, see page 19.)

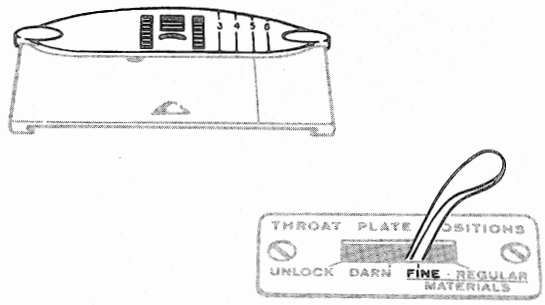


11. TO POSITION THROAT PLATE

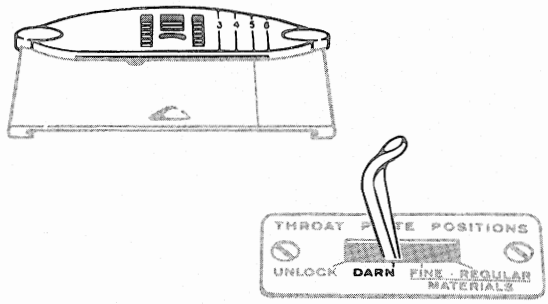
The Throat Plate may be placed in any one of its four positions — REGULAR, FINE, DARN, UNLOCK — by gently moving the Throat Plate Position Lever into place above the appropriate designation. When each position is reached, you will feel a slight resistance to the movement of the lever.



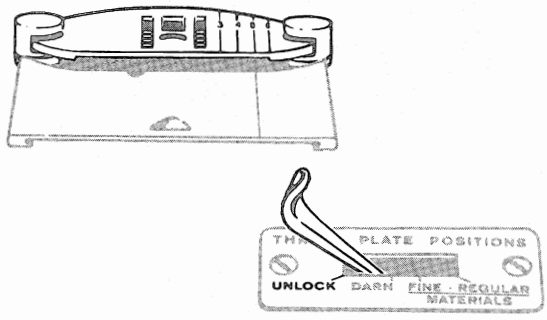
Throat Plate in **REGULAR** position for sewing on most fabrics and for all chainstitching, no matter what kind of fabric is used.



Throat Plate in **FINE** position for sewing (other than chainstitching) on delicate or lightweight fabrics such as silk, batiste, crepe or organdy; and on fabrics that may mark easily.



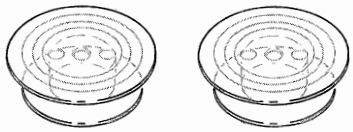
Throat Plate in **DARN** position for free-motion darning, embroidery and button sewing.



Throat Plate in **UNLOCK** position for removal and replacement. (See page 15 for instructions on changing the throat plate.

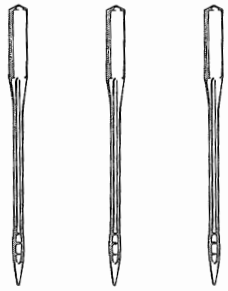
accessories

The following accessories come with your machine. And to increase the versatility of your sewing machine still further, a number of additional accessories such as a Special Purpose Presser Foot, a Binder Foot and a Ruffler are available at your local SINGER CENTER. (Some of these accessories are described at the end of this instruction book.)



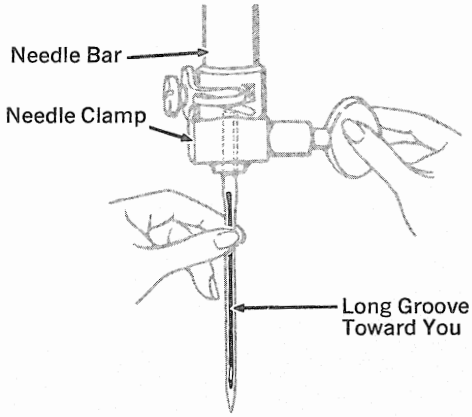
BOBBINS

- One Transparent Drop-in Bobbin in place in your machine.
- Two extra Transparent Drop-in Bobbins.



NEEDLES

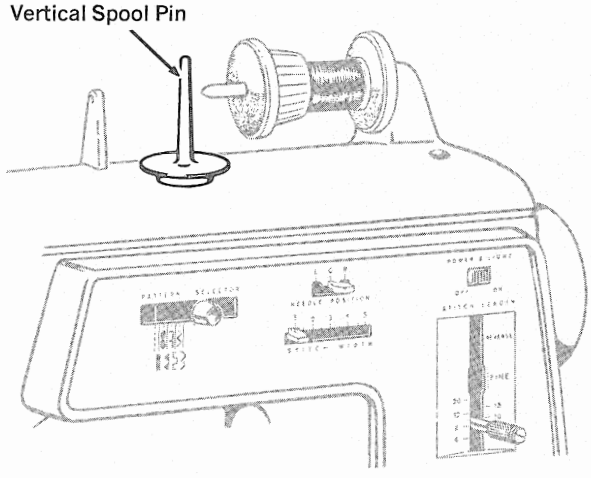
- One Needle, Catalog 2020 (15x1) Size 14, in place in your machine.
- Three extra Needles of the same size.



To Change the Needle

1. Raise needle bar to highest position by turning hand wheel toward you.
2. Loosen the needle-clamp screw and remove the needle.
3. Insert new needle in clamp, with the *flat* side of the needle to the back and the *long groove toward you;* push it up as far as it will go.
4. Tighten needle-clamp screw.

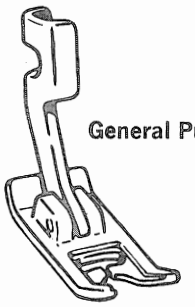
This machine uses needles
Catalog 2020 (15X1)
Sizes 9, 11, 14, 16 and 18.



VERTICAL SPOOL PIN

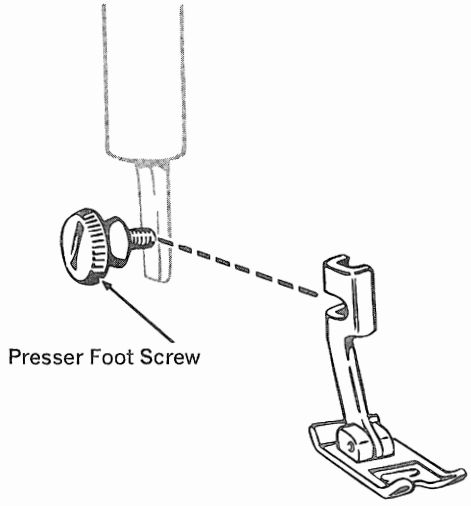
- One Vertical Spool Pin

The Vertical Spool Pin is used for two-needle stitching (see page 26 for detailed instructions).



General Purpose Presser Foot

Straight Stitch Presser Foot



Presser Foot Screw

PRESSER FEET

- General Purpose Presser Foot on your machine.

  Use the General Purpose Presser Foot with the General Purpose Throat Plate for all utility sewing. These general purpose fittings *must* be used when alternating between straight and zig-zag stitching. (For discussion of throat plates, see page 15.)

- Straight Stitch Presser Foot.

  Use the Straight Stitch Presser Foot with the Straight Stitch Throat Plate, and pattern selector set for straight stitching in center needle position, when your fabric or sewing procedure requires close control. This narrow, hinged foot rides over pins and allows you to control the fabric easily when stitching in a curve or close to the fabric edge. The narrow slot prevents fabric from rising with the needle. Use these fittings for:

  - Precision stitching of curved and scalloped edges, top stitching, edge stitching, etc.
  - Stitching on delicate or spongy fabrics, synthetics, and knits, particularly tricot.

To Change Any Presser Foot

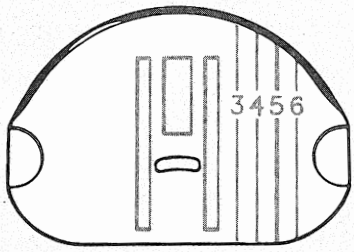
1. Raise presser foot.
2. Loosen presser foot screw. (You do *not* need to remove the screw.)
3. Remove presser foot.
4. Hook new presser foot around presser bar.
5. Tighten presser foot screw.

THROAT PLATES

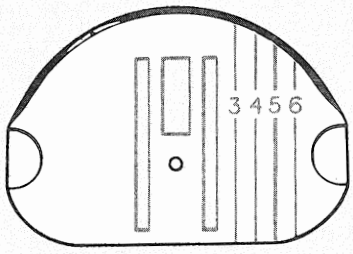
- General Purpose Throat Plate in place on your machine. (For use with General Purpose Presser Foot.)

Two additional Throat Plates:

- Straight Stitch Throat Plate. (For use with Straight Stitch Presser Foot.)
- Chainstitch Throat Plate. (This throat plate is one of three chainstitch fittings that must be used together and is discussed under the heading, "Chainstitch Fittings" on page 16.)



General Purpose Throat Plate



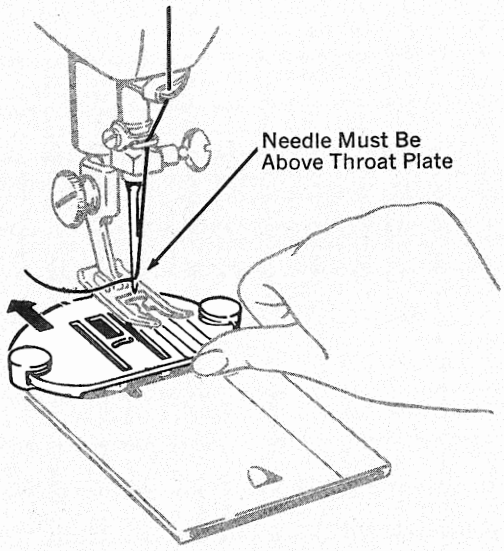
Straight Stitch Throat Plate

To Interchange Straight Stitch and General Purpose Throat Plates

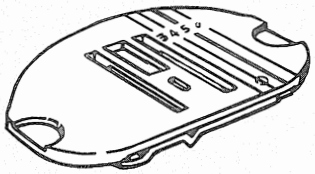
(For instructions on attaching and removing Chainstitch Throat Plate, see "Chainstitching" beginning on page 29.)

(Note: Remove bobbin if it contains thread.)

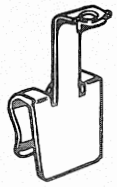
1. Raise presser foot. (You do *not* need to remove the presser foot.)
2. Turn hand wheel to bring needle above throat plate.
3. Move throat plate lever to **UNLOCK** position.
4. Remove throat plate by sliding it out.
5. Insert new throat plate by sliding it into place between the slots in the pins.
6. Move throat plate lever toward right to lock throat plate in place.



Bobbin Case Cover



Throat Plate



Thread Guide

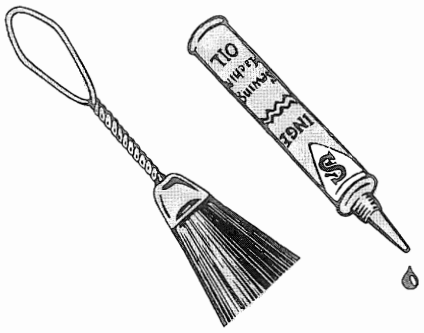
Chainstitch Fittings

CHAINSTITCH FITTINGS

One Set of three fittings:

- Bobbin Case Cover
- Throat Plate
- Thread Guide

Chainstitching has many decorative as well as practical uses. (See section called "Chainstitching" beginning on page 29 for detailed instructions on chainstitch applications.)



CLEANING AND OILING TOOLS

- One Lint Brush
- One Tube SINGER* Sewing Machine Oil

Your sewing machine is a fine yet sturdy precision instrument, and it will serve you perfectly for many years if you take a few simple steps to keep it in good working condition. Instructions on at-home care of your sewing machine begin on page 52.

2. STRAIGHT STITCHING

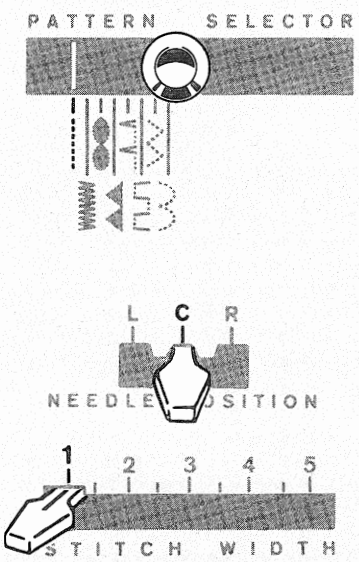
preparation

FABRIC, THREAD, NEEDLE, AND STITCH LENGTH TABLE †

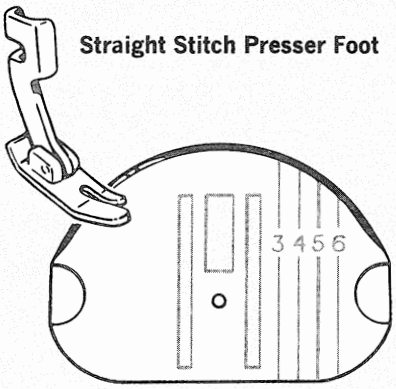
FABRICS	THREAD SIZES	NEEDLE SIZES	STITCH LENGTH SETTING
DELICATE—tulle, chiffon, fine lace, silk, organdy, fine tricot	Fine Mercerized 100 to 150 Cotton Synthetic Thread	9††	15 to 20
LIGHTWEIGHT—batiste, organdy, jersey, voile, taffeta, silk, crepe, chiffon velvet, plastic film	50 Mercerized 80 to 100 Cotton "A" Silk Synthetic Thread	11	12 to 15 (8 to 10 for plastic)
MEDIUM WEIGHT—gingham, percale, pique, linen, chintz, faille, satin, fine corduroy, velvet, suitings, stretch fabric	50 Mercerized 60 to 80 Cotton "A" Silk Synthetic Thread	14	12 to 15
MEDIUM HEAVY—gabardine, tweed, sailcloth, denim, coatings, drapery fabrics	Heavy Duty Mercerized 40 to 60 Cotton	16	10 to 12
HEAVY—overcoatings, dungaree, upholstery fabrics, canvas	Heavy Duty Mercerized 20 to 40 Cotton	18	6 to 10

†Does not apply to chainstitching.

††Size 9 needle recommended for sewing only. For bobbin winding, use larger size needle.

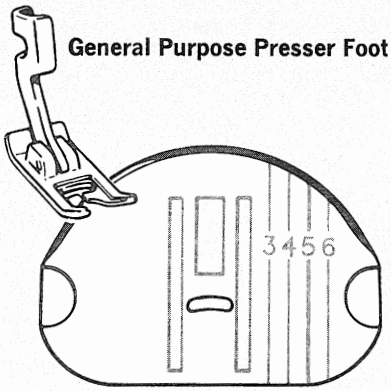


Straight Stitch Selector Settings



Straight Stitch Presser Foot

Straight Stitch Throat Plate



General Purpose Presser Foot

General Purpose Throat Plate

MACHINE SETTINGS AND ACCESSORIES

Before making any setting adjustments, turn hand wheel until needle is out of fabric.

Your choice of accessories will depend on the fabric and stitching requirements.

- Stitch Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: **1**
- Needle Position: **C**
- Stitch Length: To suit fabric
- Throat Plate: Straight Stitch or General Purpose
- Presser Foot: Straight Stitch or General Purpose

Use the Straight Stitch Presser Foot with the Straight Stitch Throat Plate when your fabric or sewing procedure requires close control. This narrow, hinged foot rides over pins and allows you to control the fabric easily when stitching in a curve or close to the fabric edge. The narrow slot prevents fabric from rising with the needle.

Use the General Purpose Presser Foot with the General Purpose Throat Plate for all utility sewing. These general purpose fittings *must* be used when alternating between straight and zig-zag stitching.

NEEDLE AND BOBBIN THREADS

How you begin stitching depends on whether you are using a newly wound or a previously wound bobbin.

When you have just wound a bobbin, you will have *one continuous thread* leading from the needle into the bobbin.

When you have just inserted a bobbin that was previously wound, you will have *two separate threads*: the upper or needle thread and the lower or bobbin thread. Before you can start to stitch you must bring the bobbin thread up through the throat plate needle hole.

Instructions for both conditions are given below. (These instructions also apply to zig-zag stitching.)

With a Newly Wound Bobbin

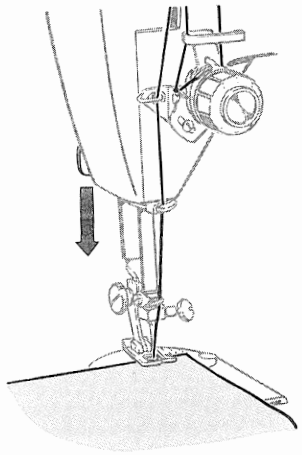
If you are starting to stitch *at* the fabric edge:

- Close Slide Plate
- Position needle in very edge of fabric
- Lower presser foot and stitch. Thread will "lock" over fabric edge.

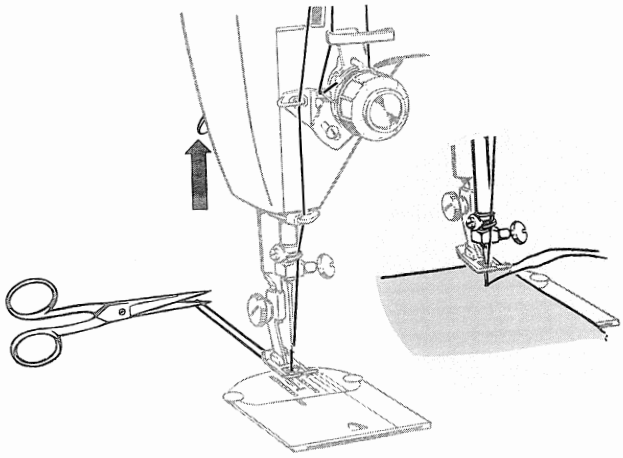
If you are starting to stitch *in* from fabric edge:

- Close Slide Plate
- Pull thread back under presser foot and cut
- Position needle in from fabric edge where desired and stitch.

NOTE: Should the bobbin run out of thread after you have already begun a line of stitching, remove the fabric, rewind the bobbin and follow the three immediately preceding steps.

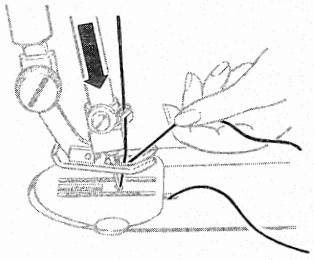


Starting at Fabric Edge

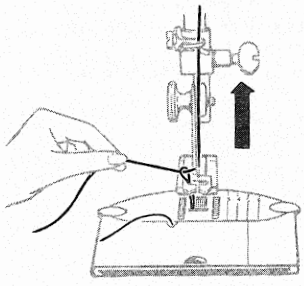


Starting in from Fabric Edge

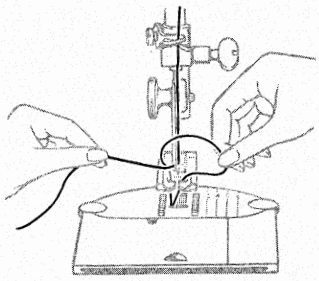
With a Previously Wound Bobbin



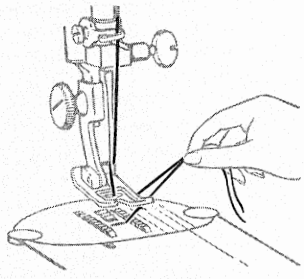
Hold needle thread lightly with left hand and turn hand wheel slowly toward you so that needle enters throat plate.



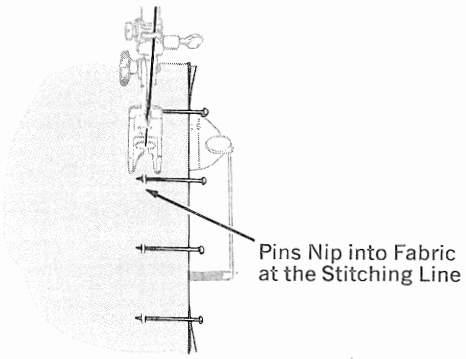
Continue turning hand wheel until needle rises and brings up bobbin thread in a loop.



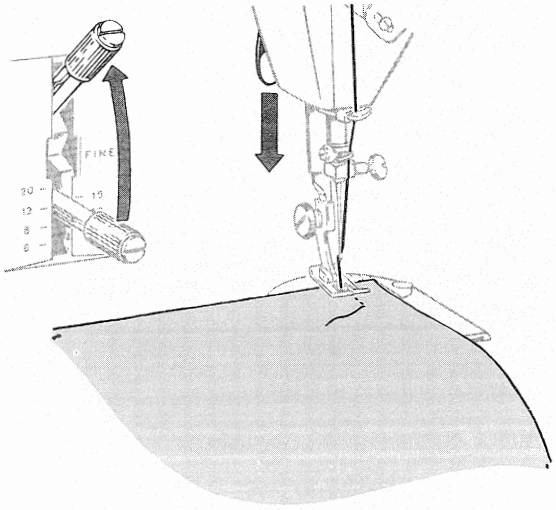
Undo the loop with your finger.

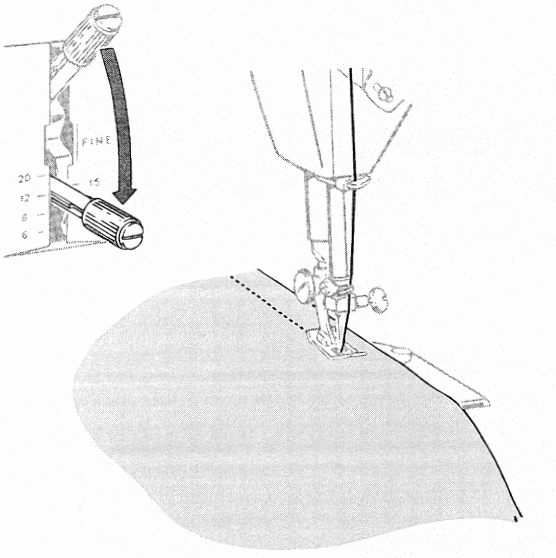


Place both needle and bobbin threads under presser foot and lay them diagonally to the right. Position needle in fabric where desired and stitch.



Pin Placement





how to sew a seam

PIN BASTING

Pin basting is a time saver and can be used in place of hand basting when you are straight stitching seams in easy-to-handle fabrics. The Straight Stitch Presser Foot is recommended, but the General Purpose Presser Foot may also be used. When sewing over pins with either foot it is important to use fine pins and to place them correctly in relation to the stitching line.

Place pins so that:

- They are at right angles to the stitching line.
- They just nip into the fabric at the stitching line.
- There is minimum pin extension beyond the stitching line. Pins should not extend under both sides of the presser foot and should never be placed on the underside of the fabric in contact with the feed dog.

STRAIGHT SEAMS

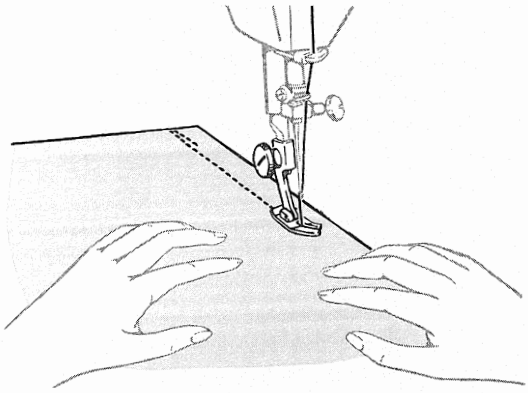
- Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: 1
- Needle Position: C
- Stitch Length: 6 to 20 depending on fabric
- Throat Plate: Straight Stitch or General Purpose
- Presser Foot: Straight Stitch or General Purpose

Starting a Seam

1. With presser foot up, position needle in fabric about ½ inch from edge.
2. Lower presser foot and raise Stitch Length Selector to **REVERSE.** Backstitch to edge of material for reinforcement.
3. Lower Stitch Length Selector for forward stitching, and stitch.

Guiding and Supporting Fabric

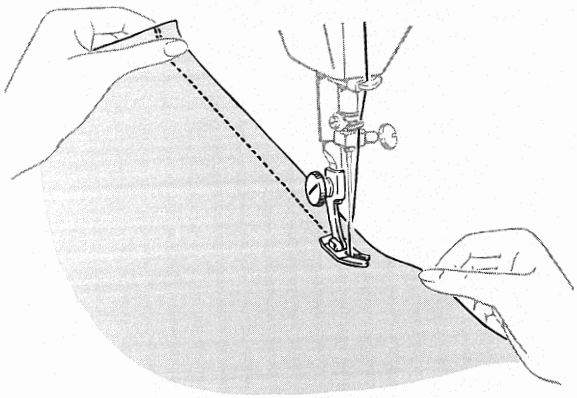
Most fabrics need to be guided in front of the presser foot only, as illustrated.



Guiding Fabric

Some fabrics, however, require support while being stitched. These fabrics require using the Straight Stitch Presser Foot, as shown.

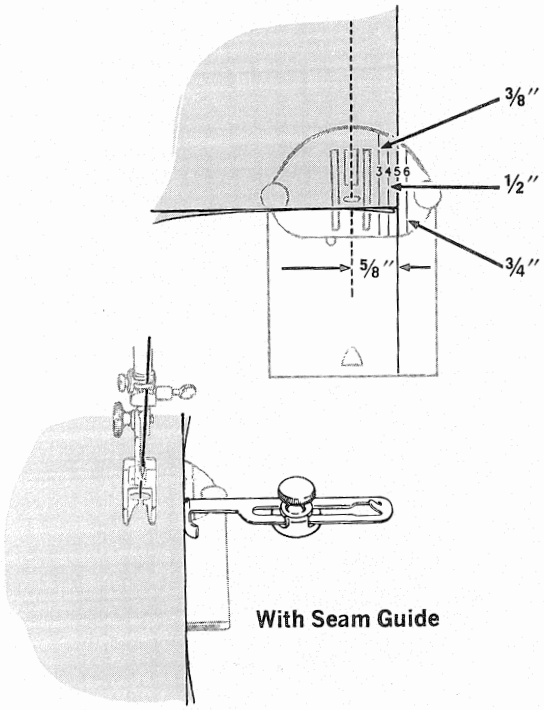
- For filmy sheers, knits, tricots, etc., apply *gentle tension* by holding seam in front and back of the presser foot.
- For stretch fabrics, apply *firm tension* front and back when stitching in the same direction as the stretch. For seams not on the stretch direction stitch in conventional manner, guiding fabric in front of presser foot.



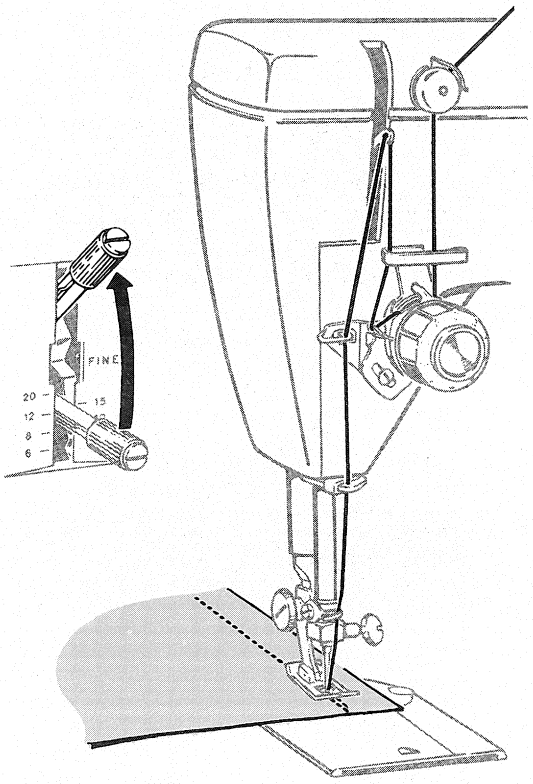
Supporting Fabric

To keep the seam straight as you stitch, use one of the numbered guide lines on the throat plate. Numbers indicate distance, in eighths of an inch, from the needle. If you want a 5/8 inch seam, for example, line up your fabric with line 5. Note that line 5, the one most commonly used, is extended on the slide plate for your convenience.

For additional guidance, you may wish to purchase the Seam Guide. (See page 59.)

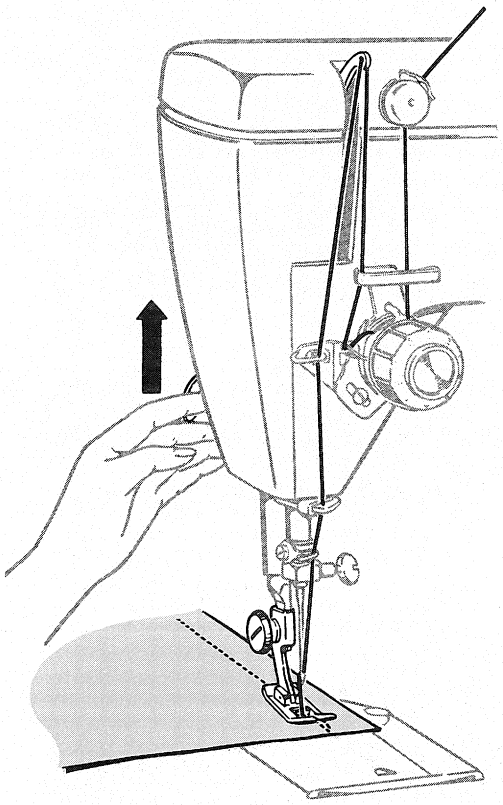


With Seam Guide



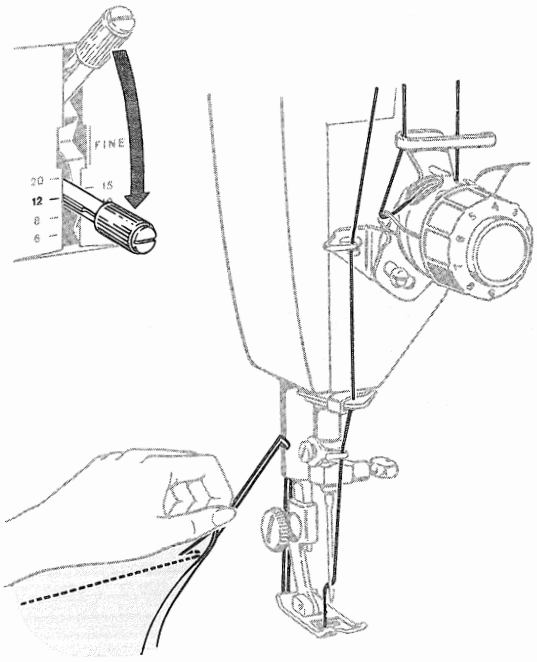
Ending a Seam

1. Raise Stitch Length Selector and backstitch to reinforce end of seam.



2. With take-up lever at highest point, raise presser foot and remove fabric.

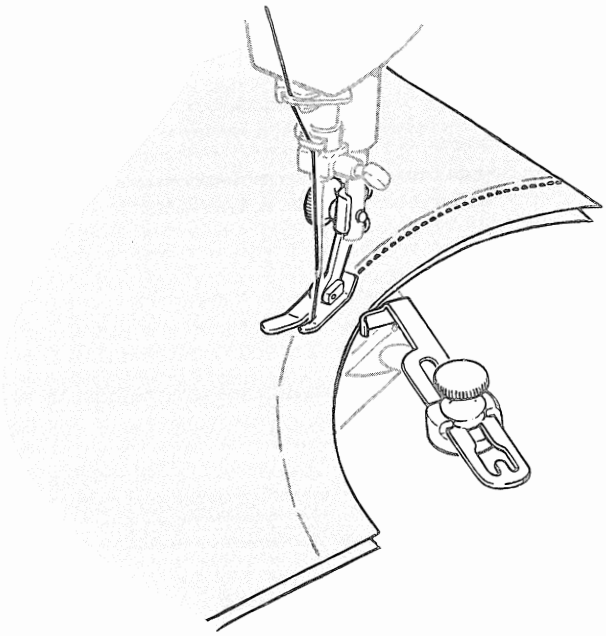
3. Cut threads on thread cutter at rear of presser bar. Reset Stitch Length Selector down for forward stitching.



CURVED SEAMS

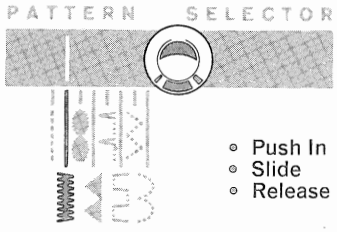
Follow the same steps as for straight seams *except:*

1. Use a short stitch length for elasticity and strength. For example, if you use 12 stitches per inch for straight seams, select 15 to 20 per inch to stitch curved seams in the same fabric.
2. Use the Straight Stitch Presser Foot for greatest accuracy.
3. If you use the Seam Guide, attach it at an angle so that the edge that is closer to the needle acts as a guide. Seam Guides are available for purchase at your local SINGER CENTER.



3. ZIG-ZAG STITCHING

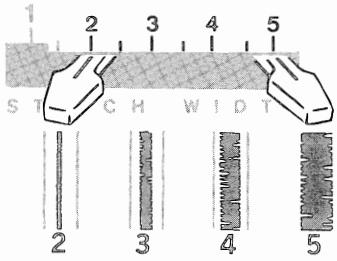
The seven stitch patterns that are built into your machine will do a variety of jobs with a minimum of effort. Some you will use for practical purposes — buttonholes and button sewing; seaming, seam finishing, and blindstitching; and even mending. Others are purely decorative and will give an individual touch to your clothes and home. Illustrations of all seven patterns are shown on page 5.



The plain zig-zag (WWWWWWWW), which is placed second from the left on your Selector, is especially useful for many steps in sewing.

To set the Pattern Selector, push selector button in and slide it to right or left until indicator line is aligned with the stitch pattern you choose. Then release button.

how to adjust the width of the design



To produce a zig-zag stitch, the Stitch Width Selector must be moved from straight-stitch position 1 to any setting between 2 and 5. The higher the number you select, the wider your stitch will be.

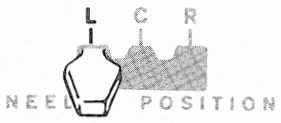
Raise needle above fabric before moving selector.

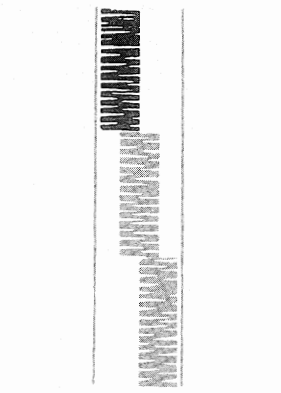
how to adjust stitch placement

A Needle Position Selector setting of **C** places the needle in center stitching position. Selector settings **L** and **R** place the needle in left and right stitching positions at widths less than **5**.

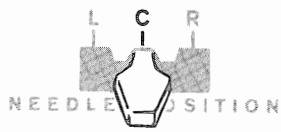
Selector setting **C** is used most often. Settings **L** and **R** are for special placement of stitching. For example, an **L** setting is required for buttonholes and button sewing. An **L** or **R** setting is used to place narrow zig-zag stitching to the left or right of center in decorative work.

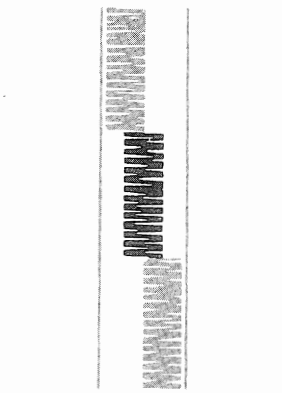
Raise needle above fabric before moving selector.



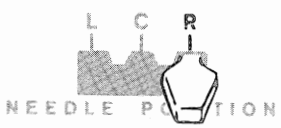


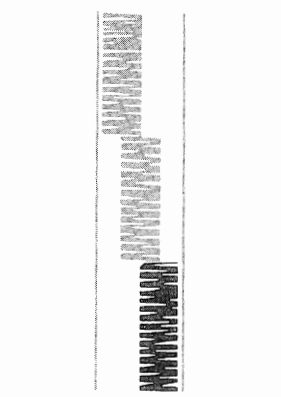
Left Needle Position





Center Needle Position





Right Needle Position

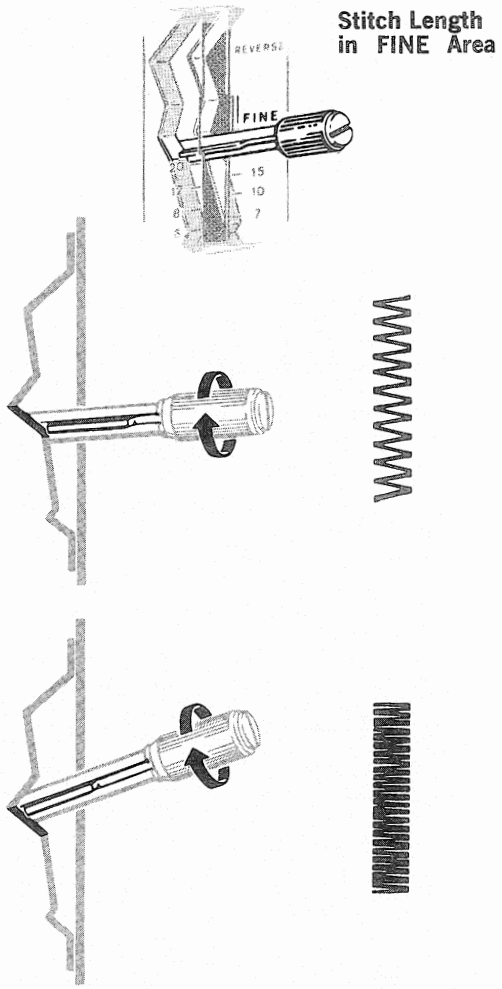
how to adjust stitch length and needle-thread tension

When you are preparing to do zig-zag stitching, make a test sample with the fabric and thread you plan to use so that you can adjust the stitch length and needle-thread tension properly. If you need to adjust pressure, see page 7.

STITCH LENGTH

For open zig-zag stitching, choose any stitch length from **6** to **20**, depending on how open you wish the stitches to be. If you wish a closely packed zig-zag stitch:

1. Move Stitch Length Selector to bottom of **FINE** area.
2. Run machine at slow speed.
3. Gradually tighten thumb nut by turning it to right, until stitches are closely spaced and form a smooth surface.



Stitch Length in FINE Area

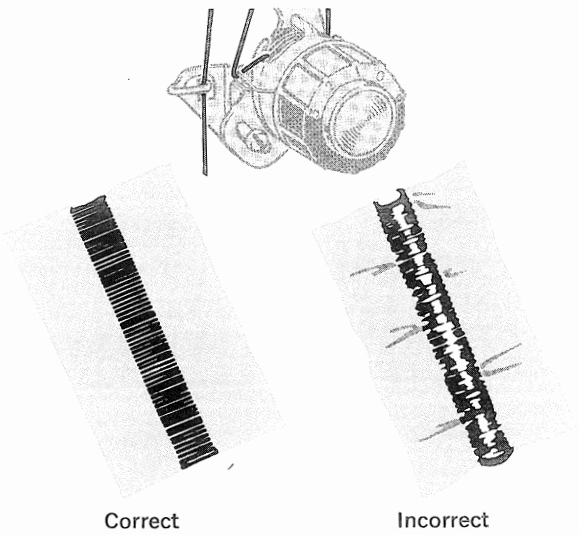
As the Selector Is Raised, Stitches Close Up

NEEDLE-THREAD TENSION

All zig-zag stitching requires less tension than straight stitching; and closed zig-zag stitching requires even less tension than open zig-zag stitching. Furthermore, the wider the stitch, the lighter the tension on the thread must be. Thus, stitch width **5** requires the least tension; narrower stitching requires somewhat more.

Notice the stitching on your sample. If the stitching looks too taut, or if the fabric is puckering, lower the needle-thread tension by turning the Tension Dial to a lower number.

Tension Adjustment for Closed Zig-Zag Stitching



Correct Incorrect

4. TWO-NEEDLE STITCHING

By using two needles at once, you can produce two parallel, closely spaced, decorative lines of stitching simultaneously. You can use either one or two colors of thread; and you can choose either a straight-stitch or any of the seven stitch patterns built into your machine.

Some of the attractive designs you can create are shown on page 28.

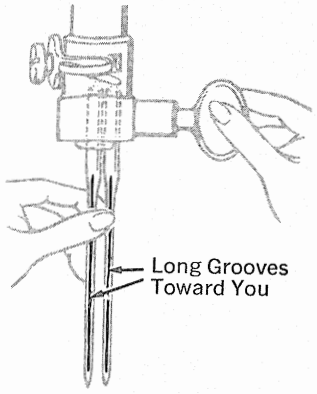
preparation

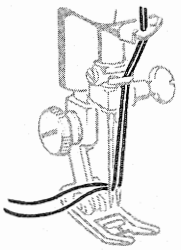
1. Fill bobbin with enough thread to complete stitching. (Since the bobbin cannot be filled after the two needles are inserted, it is often wise to keep an extra wound bobbin at hand for replacement.)
2. Close slide plate.
3. Pull out a loop of thread between the needle and the throat plate.
4. Cut thread 4 inches from needle hole, and unthread the machine.
5. Loosen thumb screw on needle clamp and insert two needles, as illustrated. The two needles must be the same size. (If the needle you used to fill the bobbin is the correct size, simply loosen the thumb screw and insert a second needle into the clamp from the right.)

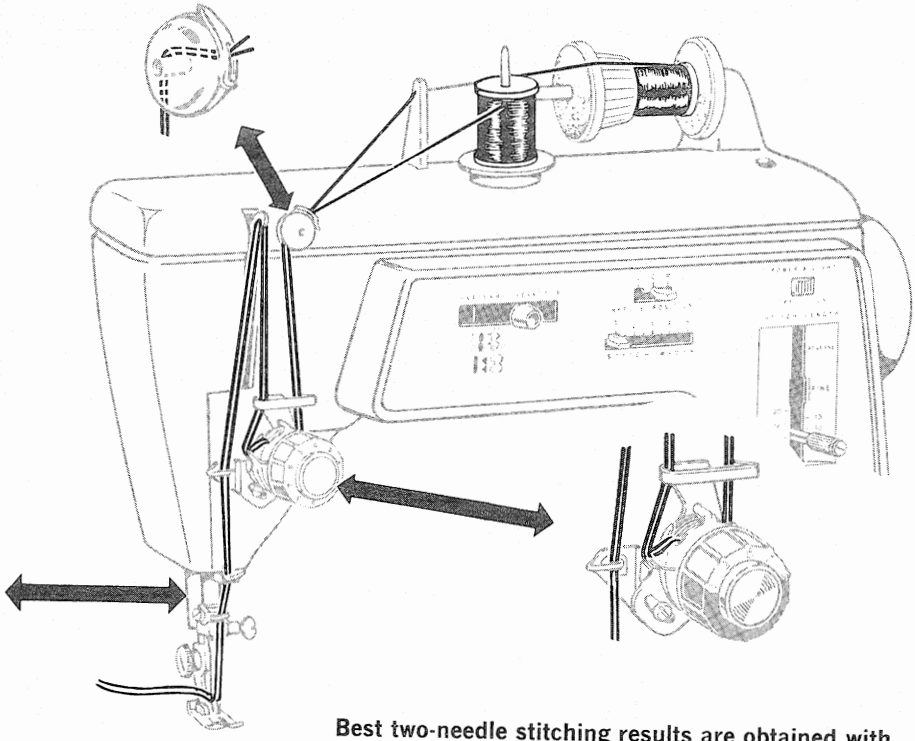
Note: When inserting a previously wound bobbin, follow the instructions on page 11.

to thread the needles

1. Place spool of thread on horizontal spool spindle. Thread as for one-needle stitching *except:*
   - Pass thread between **center** and **back** tension discs.
   - Pass thread through eye of right needle.
2. Insert detachable spool pin into hole provided for it, as shown below.
3. Place spool of thread on vertical spool pin. Thread as for one-needle stitching *except:*
   - Do not attempt to pass thread through guide behind the spool pin.
   - Pass thread between **center** and **front** tension discs.
   - Pass thread through eye of left needle.



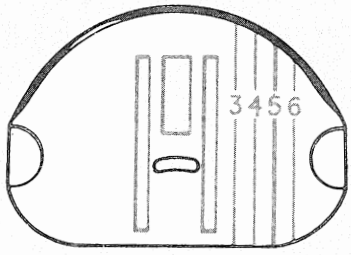




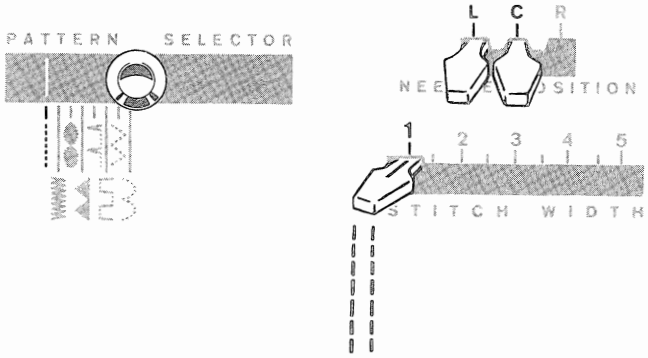
Best two-needle stitching results are obtained with No. 50 Mercerized Thread and Size 14 Needles

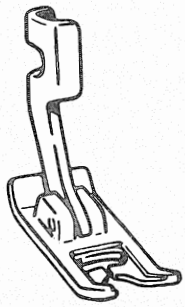
straight stitching with two needles

- Pattern Selector: Straight Stitch (----------)
- Stitch Width Selector: 1
- Needle Position: C or L only
- Throat Plate: General Purpose
- Presser Foot: General Purpose



General Purpose Throat Plate

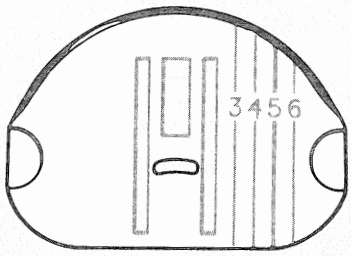




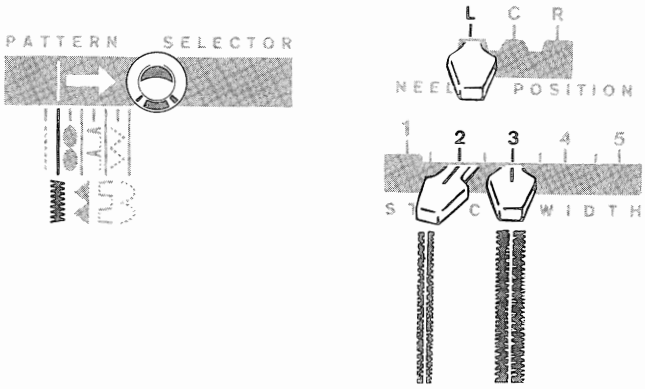
General Purpose Presser Foot

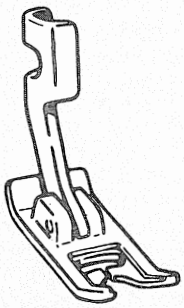
zig-zag stitching with two needles

- Pattern Selector: Any pattern
- Stitch Width Selector: 2 or 3 maximum
- Needle Position: L only
- Throat Plate: General Purpose
- Presser Foot: General Purpose



General Purpose Throat Plate





General Purpose Presser Foot

decorative two-needle stitching

Zig-Zag

Ball

Pyramid

Blindstitch

Box

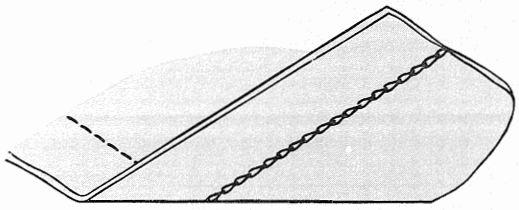
Multi-Stitch Zig-Zag

Scallop

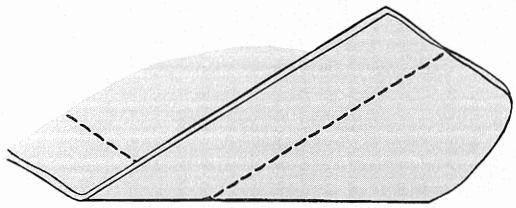
5. CHAINSTITCHING

a word about single-thread chainstitching

Single-thread chainstitching looks like regular straight stitching on top, but is a series of interlocking loops on the underside of the fabric. The stitches are produced by the needle thread alone — so you do not need a bobbin thread or a bobbin. Because the stitches are formed by a single thread, the interlocked loops unravel easily. The entire line of stitching can be removed with just a pull on the thread end. Also, the loop formation of the stitches makes them less taut than regular straight stitches. That's what makes chainstitching flexible.



Chainstitch



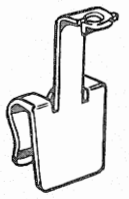
Regular Straight Stitch

where to use chainstitching

Here are a few of the many sewing jobs for which you will find chainstitching useful. Pages 34 and 35 show you how chainstitching can save you time and work.

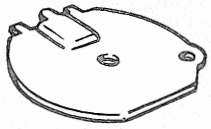
- Basting —
  Trial seams for fitting
  Construction guidelines
  Zipper openings, linings and interfacings.
- Stay-stitching to preserve garment shape during assembly
- Fastening removable trimming —
  Fur collars
  White collars and cuffs
- Hemming curtains and draperies that may need to be altered
- Sewing temporary tucks to extend the life of —
  Children's clothes
  Curtains and linings that might shrink
- Making welting for corded seams, tubular cording for trimming and button loops
- Attaching hem tape
- Making stay chains to anchor linings, or to hold belts or shoulder pads in place

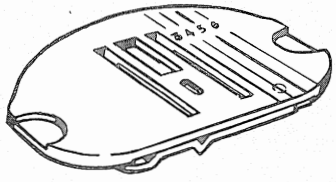
Chainstitch Fittings



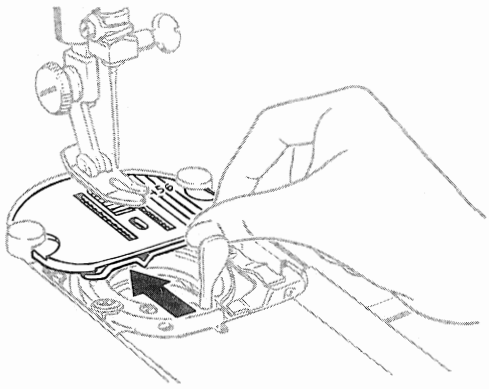
Thread Guide

Bobbin Case Cover

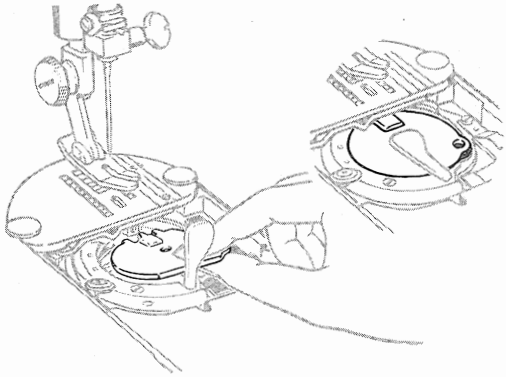




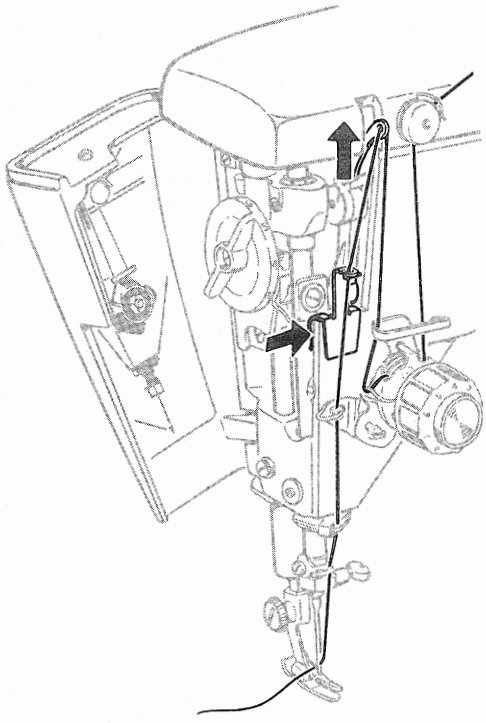
Chainstitch Throat Plate



Insert Throat Plate



Position the Bobbin Case Cover

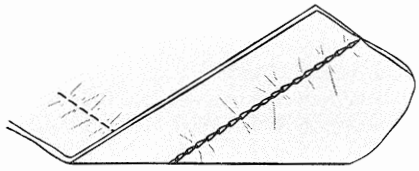


Attach the Thread Guide

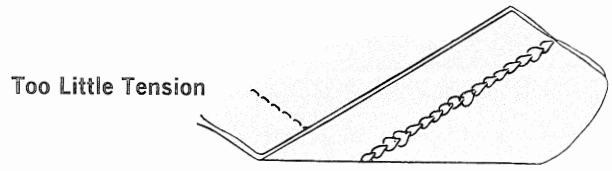
preparation

1. Attach Chainstitch fittings.
   - Turn hand wheel toward you to raise take-up lever to its highest point.
   - Raise presser foot, open slide plate, and remove bobbin.
   - Unlock throat plate and remove.
   - Slide chainstitch throat plate into place from *front*. Lock it in **REGULAR** position.
   - Insert bobbin-case cover in bobbin case. The finger-lift tab goes to the right. Close slide plate.
   - Open face plate and slip chainstitch thread guide into place. Close face plate.
2. Thread your machine in the usual way *except* pass thread from take-up lever through self-threading eyelet in the chainstitch thread guide.

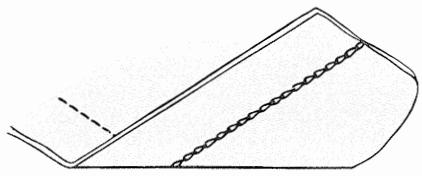
   Soft, pliable threads of light and medium weight are most suitable for chainstitching. No. 50 Mercerized cotton and "A" silk are recommended. Use these threads in a Size 14 needle.
3. Adjust thread tension. Chainstitching requires approximately the same needle-thread tension as regular straight stitching, provided the same kind of thread is used. When the tension is correctly adjusted, the chain will be flat and smooth. Puckers in the fabric and pinched loops indicate too much tension; turn dial to a lower number. Large, irregular loops indicate too little tension; turn dial to a higher number.



Too Much Tension



Too Little Tension



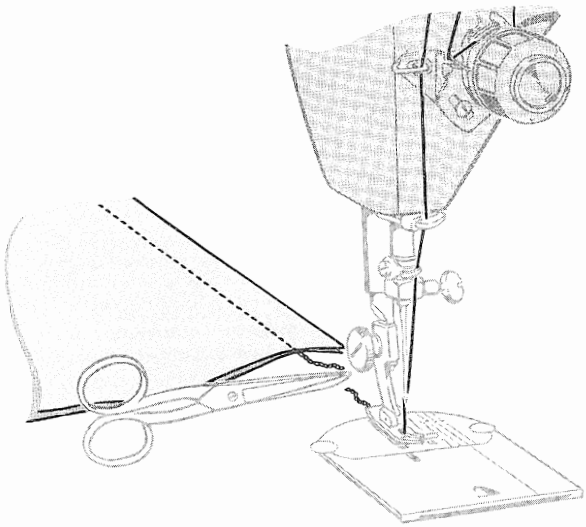
Correct Tension

to sew a chainstitch seam

- Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: **1**
- Needle Position: **C**
- Stitch Length: **8** to **12** only
- Presser Foot: Straight Stitch or General Purpose

TO START AND CHAIN OFF

1. Be sure that throat plate is in **REGULAR** position, then place needle in very edge of fabric and lower presser foot.
2. Start the machine and stitch to end of seam. Continue stitching beyond edge of fabric, making a chain from one to two inches long.
3. Cut chain between fabric and presser foot.
4. After chaining off, start a new line of stitching by raising the presser foot slightly and positioning the fabric in front of needle. Lower presser foot and stitch to end of seam.

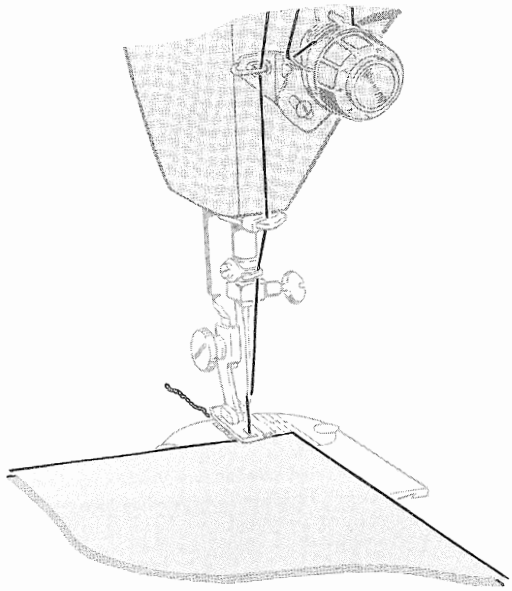


Chaining Off

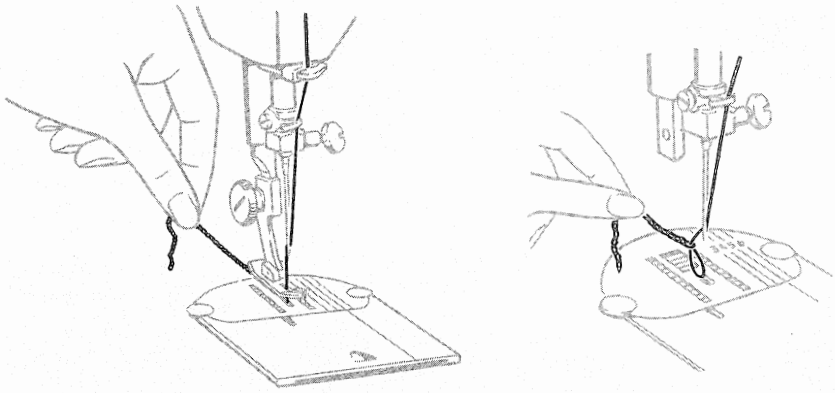
TO RELEASE THE CHAIN FROM THE MACHINE

When you finish chainstitching, the chain can be easily removed from the machine.

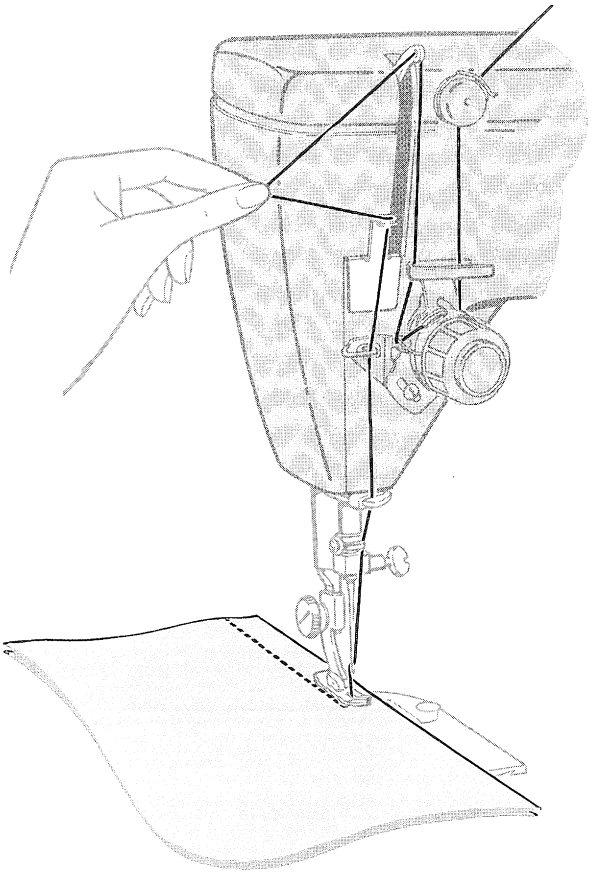
1. Raise presser foot.
2. Hold end of chain with your left hand.
3. Turn hand wheel slowly *toward* you with your right hand until needle is all the way down in the needle hole.
4. Then turn hand wheel slowly *away* from you, pulling gently on chain, which will unravel as needle raises.



Stitch Starting Point after Chaining Off



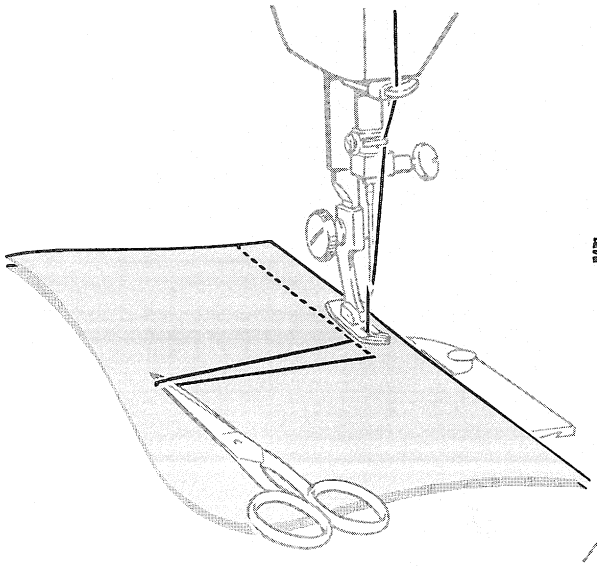
To Release Chain



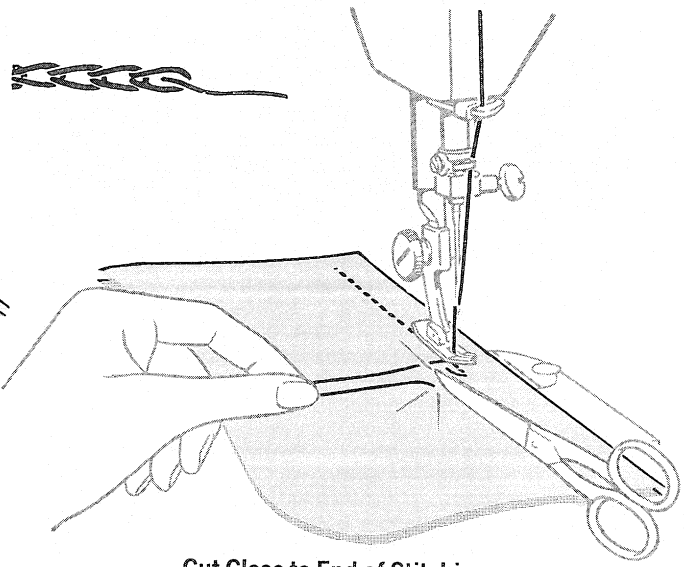
TO END THE STITCHING IN THE FABRIC

Occasionally you may need to end your stitching in the fabric. Basted hems and temporary tucks, for example, as well as partially stitched-down pleats can be completed in this way:

1. Stop stitching at desired point, with take-up lever in its highest position.
2. Raise presser foot.
3. With your finger, pull the thread through the take-up lever, forming a loop between the take-up lever and chainstitch thread guide.
4. Pass scissors under presser foot so as to draw the loop down to the left of the foot.
5. Hold the loop and cut the thread close to the end of the stitching.
6. Remove fabric from machine by pulling it straight back, away from you. This will cause the thread end to pull through the fabric to the underside and form a temporary lock.
7. If you wish to secure this temporary lock, fold the thread end back over the chain and fasten with hand stitching.



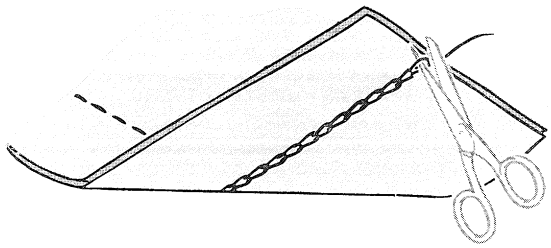
Draw the Loop Down to Left of Foot



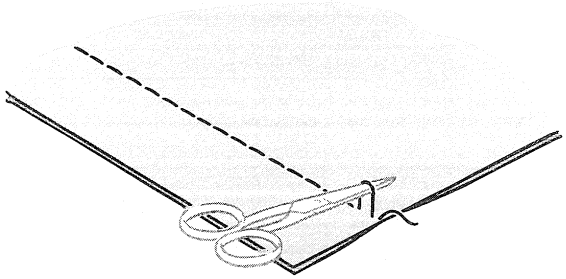
Cut Close to End of Stitching

to remove the stitching

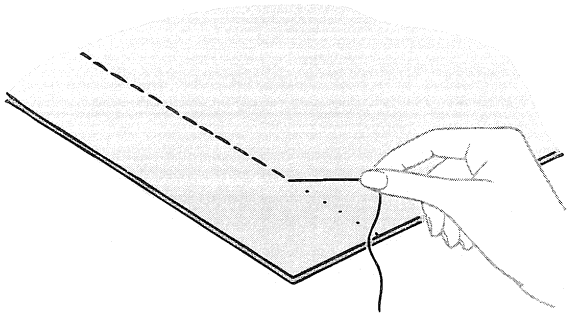
Chainstitching can be removed smoothly and cleanly in seconds by freeing the last stitch formed in the fabric.



1. Simply cut the last loop formed on the underside of the fabric.



2. Then pick up the free thread end from top surface of fabric.

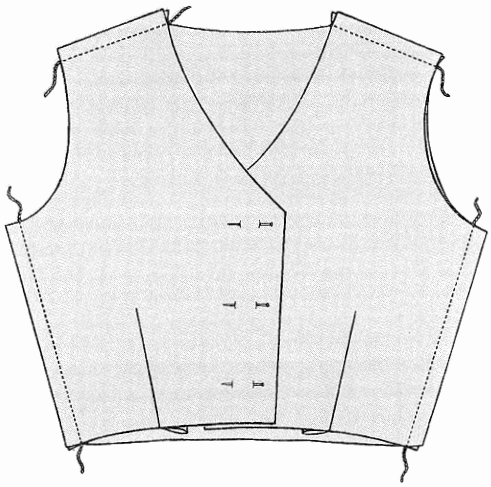


3. Pull the free thread end, removing entire line of stitching.

to remove the fittings

1. Release chain from machine.
2. Position take-up lever at its highest point.
3. Open slide plate.
4. Remove bobbin-case cover.
5. Snap down latch.
6. Unlock throat plate and remove by sliding it toward you.
7. Remove chainstitch thread guide.

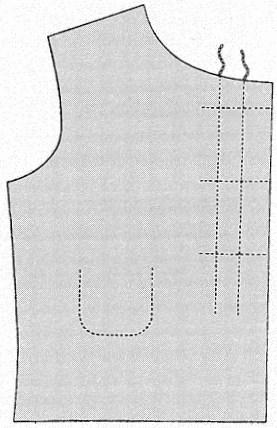
garment fitting and construction with chainstitching



Here are several ways in which you will find chainstitching preferable to either regular straight stitching or hand basting.

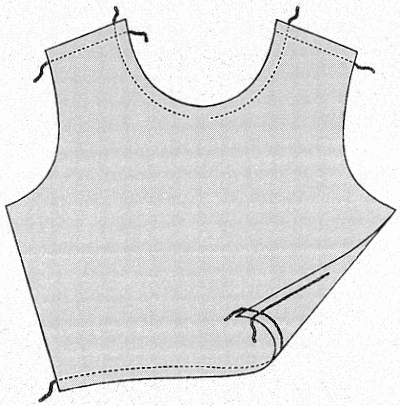
GARMENT FITTING

Time and energy can be saved when chainstitching is used to baste garment sections or muslin shells for trial fittings. The firmness of the stitch ensures accuracy in fitting, yet the stitching can be ripped out in seconds if adjustments are necessary.



CONSTRUCTION GUIDE LINES

In many instances, construction guide lines for pockets, buttonholes, and other details can be advantageously marked with chainstitch basting. The stitching will give a clearly defined line marking. Yet, unlike chalk or pins, it will not rub off or become lost as the fabric is handled. This method lends itself particularly to use on wools and other fabrics that do not retain needle penetrations.

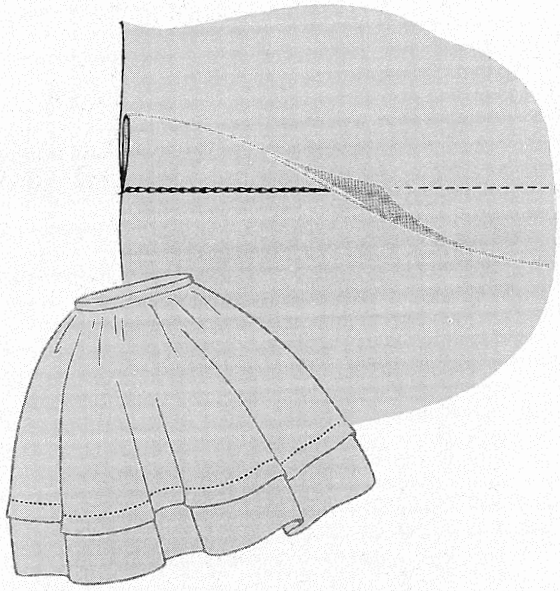


STAY STITCHING

Chainstitching can be used to stay-stitch necklines, shoulderlines, and waistlines before garment assembly. Flexible, yet firm, this stitching will hold the original shape of these areas and prevent stretching.

GROWTH AND SHRINKAGE TUCKS

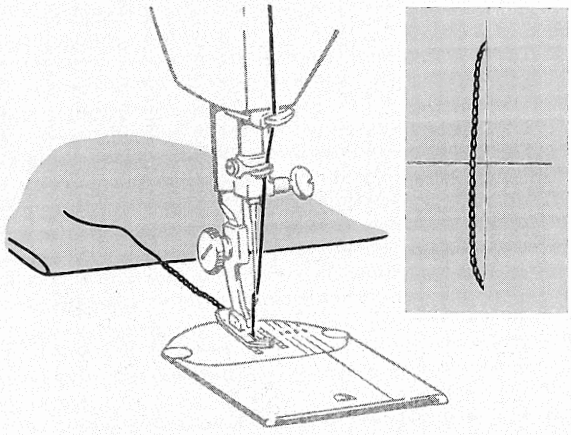
Tucks are frequently put into curtains, linings, and children's clothes to allow for the child's growth or fabric shrinkage. "Letting down" is no longer a chore when tucks are chainstitched. Simply unlock the last loop of the chain formed on the underside of the tuck and pull out the stitching.



Growth and Shrinkage Tucks

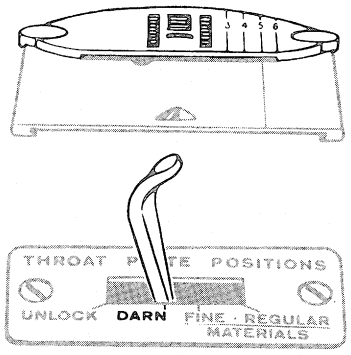
BELT CARRIERS AND STAY CHAINS

Stay chains (sometimes called French tacks) and belt loops, normally time-consuming hand-worked detail finishes, can now be quickly chainstitched. To produce a chain, place the first stitch in the fabric. Stitch off fabric and continue stitching until a sufficient length of chain is produced. Thread chain through an embroidery or darning needle and tack to garment or lining. A No. 12 stitch length setting is recommended.

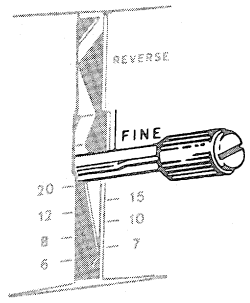


Belt Carriers and Stay Chains

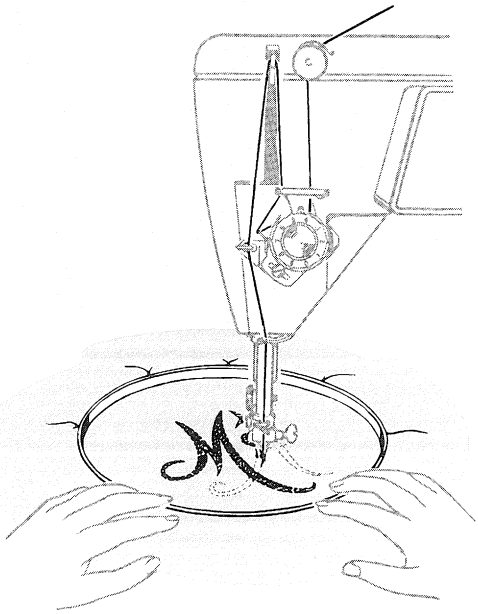
6. FREE-MOTION STITCHING



Throat Plate in DARN Position



Stitch Length Selector in FINE Area



Free-Motion Monogram

In free-motion stitching, you sew without a presser foot and instead control fabric movement (and hence stitch length) yourself, by means of an embroidery hoop. Either a straight or a zig-zag stitch setting can be used. Because you can move the hoop in any direction — forward or backward, from side to side, and even diagonally — free-motion stitching is extremely useful for intricate embroidery designs. On the other hand, it is equally useful for that most humdrum but necessary task, darning.

If you are **embroidering**, you can vary the length of stitches simply by moving the hoop faster or slower. The faster you move it, the more open the stitches will be. A slow hoop movement will produce closely packed stitches. You can also vary the width of zig-zag stitches, from a hairline to the full width of whatever stitch width setting you have chosen, simply by moving the hoop. If you move it sideways and stitch in a horizontal line, you will get a hairline, if you move it forward or backward and stitch in a vertical line, you will get a full stitch width. Thus you can produce a ribbon-like effect in script lettering or create delicate flower designs. This takes practice, but you can achieve some lovely effects that look much like hand embroidery. See pages 47 and 48 for specific directions.

For **darning**, the embroidery hoop used in free-motion stitching enables you to hold the fabric taut — a real advantage when your fabric is lightweight or soft and thus is likely to pucker. See page 51 for directions.

preparation

1. Have available an embroidery hoop large enough to encompass the entire design or area to be darned.
2. Remove presser foot.
3. Raise throat plate to **DARN** position.
4. Raise Stitch Length Selector to **FINE** area.

7. CLOTHES AND HOME DECORATIONS

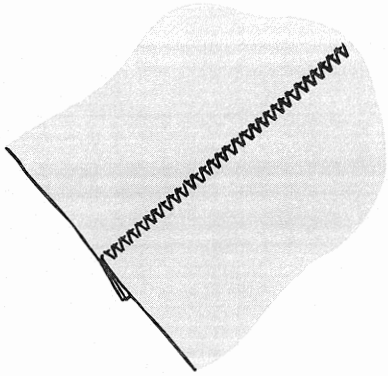
seams

LINGERIE SEAMS

- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: 2½
- Needle Position: C
- Stitch Length: 15 to 20 depending on fabric
- Throat Plate: General Purpose
- Presser Foot: General Purpose

To make a lingerie seam both durable and flexible, use a zig-zag stitch. This seam treatment is particularly suitable for bias seams.

1. Straight-stitch the seam (with Stitch Width Selector at 1) on wrong side.
2. Press both seam allowances in the same direction.
3. From the right side, top-stitch with zig-zag pattern (with Stitch Width Selector at 2½), letting the needle alternately enter the seam line and seam thickness.



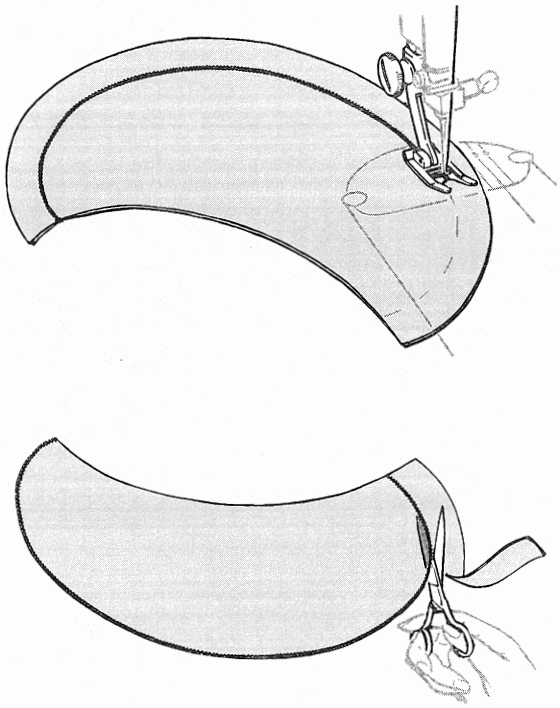
Lingerie Seam

INSIDE SEAMS OF SHEER COLLARS, FACINGS, AND CUFFS

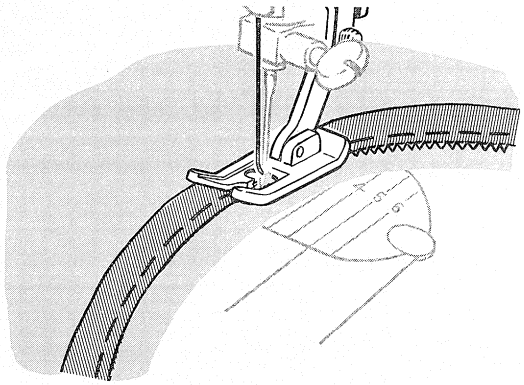
- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: 2
- Needle Position: C
- Stitch Length: FINE (above 20)
- Throat Plate: General Purpose
- Presser Foot: General Purpose

With a delicate hairline finish, seam allowances that ordinarily show through can be eliminated.

1. Stitch along seam outline.
2. Trim seam allowance close to line of stitching.
3. Turn and press.



Inside Seam of Sheer Collar



Curved Seam with Tape Stay

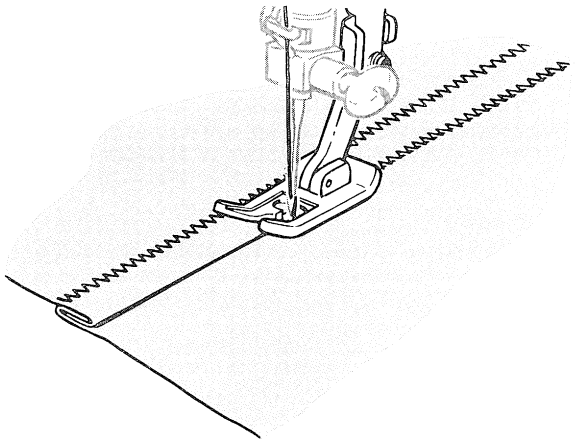
SEAMS IN KNIT FABRICS

- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: 2
- Needle Position: C
- Stitch Length: About 20
- Throat Plate: General Purpose
- Presser Foot: General Purpose

A narrow, closely spaced, zig-zag stitch is ideal for seaming knit fabrics. It is particularly desirable for underarm seams where elasticity and give are needed. Stitch and press seams as when using a straight stitch.

Where a stay is needed to prevent stretching, at neckline and shoulder seams for example, this same fine zig-zag stitch can be used to apply seam tape. For a flat, smooth stayed finish:

1. If seam is curved, pre-shape tape to fit by steam pressing.
2. Baste tape in place.
3. Stitch, allowing needle to enter seam tape and seam allowance alternately.



Flat Felled Seam

FLAT FELLED SEAMS

- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: 3
- Needle Position: C
- Stitch Length: 15 to 20 depending on fabric
- Throat Plate: General Purpose
- Presser Foot: General Purpose

Zig-zag stitching gives strength and durability to flat felled seams.

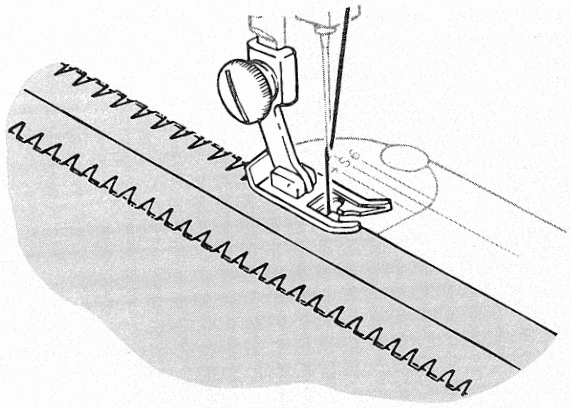
1. Stitch the seam on the right side of the fabric, taking full seam allowance.
2. Press the seam allowance to one side, keeping the right side of the stitch on top.
3. Trim the under seam allowance to one-half its width.
4. Turn the upper seam allowance edge evenly over the trimmed edge, and top-stitch.

SEAM FINISHES

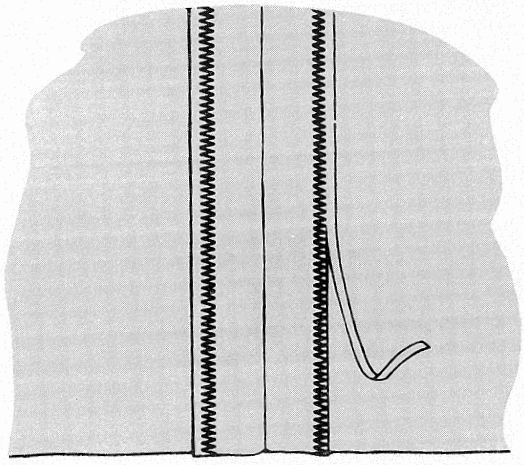
- Pattern Selector: Zig-Zag (WWWWWWWWW)
  Blindstitch (V---V---V---), or
  Multi-Stitch Zig-Zag (/\/\/\/\)
- Stitch Width Selector: **4** or **5**
- Needle Position: **C**
- Stitch Length: **8** to **20**, depending on choice of stitch and fabric
- Throat Plate: General Purpose
- Presser Foot: General Purpose

Seam edges support the garment and should be given a durable finish if the fabric is likely to ravel.

1. Make a test sample first to determine whether zig-zag stitch (WWWWWWWWW), blindstitch (V---V---V---), or multi-stitch zig-zag (/\/\/\/\) best suits your fabric.
2. Adjust stitch length and stitch width settings to suit fabric. Choose the setting that will give you the most "open" stitch that will secure the fabric edges; avoid harsh, over-stitched edges.
3. Place stitching *near* the edge of the seam allowance or *over* the raw edge as illustrated.
4. If stitching is placed *near* the edge of the seam allowance, trim edges evenly.



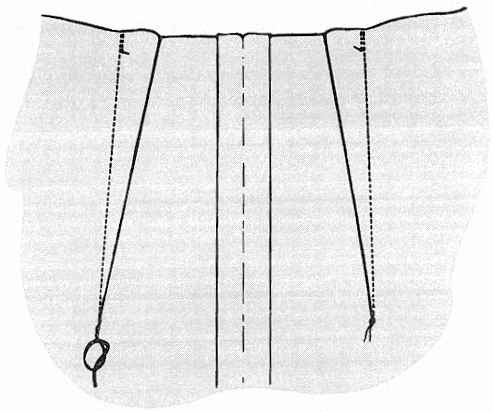
Overedged Seam Finish



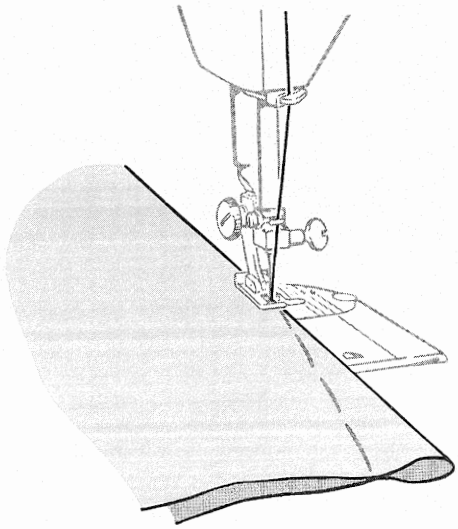
Trimmed Seam Edges

darts

Darts can, of course, be made in the usual way on your sewing machine. That is, you can begin stitching at the wide end of the dart, stitch to the point, and then fasten the two thread ends. However, thanks to the Push-Button Bobbin, you can avoid the problem of fastening the thread ends by making a "continuous-thread" dart and stitching in the opposite direction. This method is particularly useful for darts in sheer fabrics, where transparency requires a neat, clean finish. It is also useful for darts made on the right side of a garment as a style detail.



Regular Darts



Continuous-Thread Dart

REGULAR DARTS

- Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: 1
- Needle Position: C
- Stitch Length: About 12 or to suit fabric
- Throat Plate: General Purpose
- Presser Foot: General Purpose

1. Stitch from the seam edge, tapering gradually to the point.
2. Stitch beyond the fabric to form a thread chain ½ to ¾ inch long.
3. Tie the thread ends into a single knot close to the stitching.

CONTINUOUS-THREAD DARTS

- Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: 1
- Needle Position: C
- Throat Plate: General Purpose
- Presser Foot: General Purpose

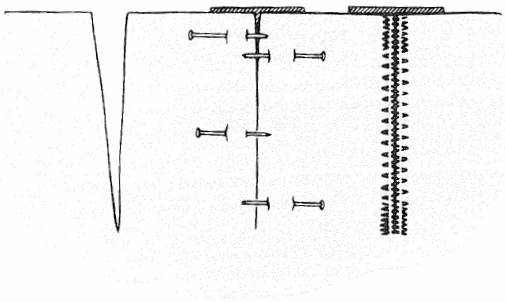
1. Wind an empty bobbin with enough thread to make a single dart (usually less than 1 yard).
2. Close slide plate.
3. Position the needle in the very edge of the fold, at the point of the basted or pinned dart.
4. Lower the presser foot.
5. Stitch carefully toward the wide end of the dart.

DARTS IN INTERFACING

- Pattern Selector: Zig-Zag (WWWWWWWW) or Multi-Stitch Zig-Zag (/\/\/\)
- Stitch Width Selector: 5
- Needle Position: C
- Throat Plate: General Purpose
- Presser Foot: General Purpose

With zig-zag stitching, interfacings can be shaped without bulk.

1. Cut out the dart allowance on the stitching line.
2. Bring raw edges together and pin over a muslin stay.
3. Stitch, backstitching at both ends.



Steps in Making a Dart in Interfacing

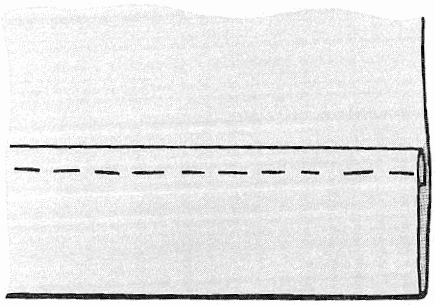
hems

BLINDSTITCH HEMS

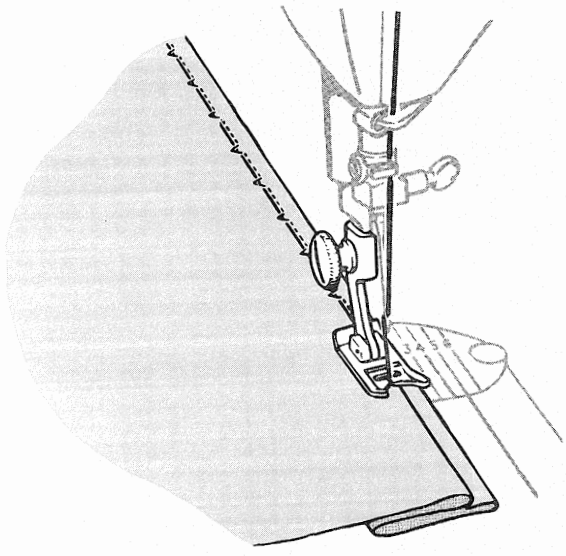
- Pattern Selector: Blindstitch(V---V---V---)
- Stitch Width Selector: 2 to 5
- Needle Position: C
- Stitch Length: 10 to 20
- Throat Plate: General Purpose
- Presser Foot: General Purpose

Blindstitching provides a durable hem finish that is invisible and is comparable to hand sewing. It is best suited to straight and slightly curved hems. Taped, bound, turned, or unfinished hem edges can be blind-stitched with equal ease. Blindstitching takes a little practice, however, so make a test sample first.

1. Mark, turn, and press hem in the usual way.
2. Baste a guide line ¼ inch from the top of the hem edge.
3. Place hem edge over the feed of the machine, turning bulk of fabric to the left and thus creating a soft fold.
4. Stitch so that straight stitches fall on hem edge and sideward stitches pierce the soft fold.

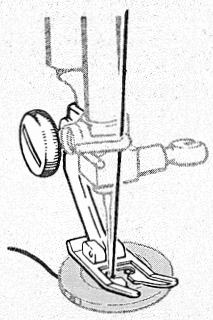


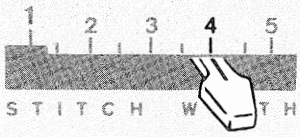
Basted Guide Line

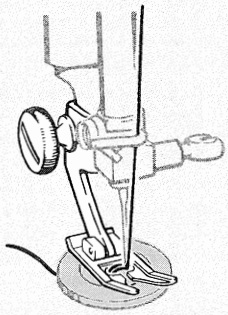


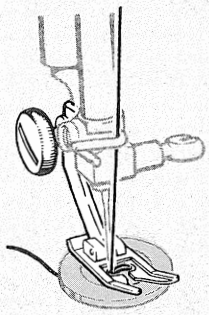
Blindstitch Hem

buttons









- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: 1 and 4
- Needle Position: L
- Throat Plate: General Purpose (DARN position)
- Presser Foot: General Purpose

The space between the holes in the button determines the stitch width settings. The 1 setting must always be used to position the needle over the *left* hole and fasten stitching. For buttons with standard hole spacing, use settings 1 and 4. For buttons with unusual hole spacing, use setting 1 and increase or decrease the width setting (4) as necessary.

To sew on two- or four-hole buttons, approximately one inch in diameter or larger:

1. Set stitch width at 1. Position button under foot so that the needle will enter the *left* hole. Lower foot. Turn hand wheel toward you until needle rises out of button and is just above the foot.

2. Set stitch width at 4. Then, when you begin to stitch, the needle should enter the *right* hole of the button. Take approximately six zig-zag stitches in this position, ending on the left side.

3. To fasten stitching, return to stitch width 1 and take approximately three stitches.

For best results with buttons smaller than one inch in diameter, it is recommended that the Button Sewing Presser Foot (available for separate purchase) be used. See page 58.

buttonholes

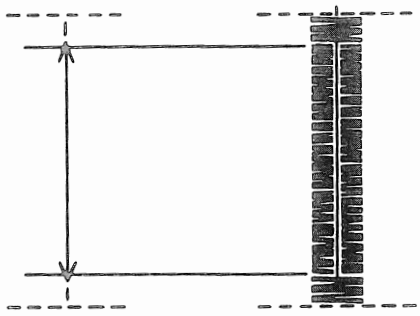
- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: See below
- Needle Position: L
- Stitch Length: FINE (above 20)
- Throat Plate: General Purpose
- Presser Foot: General Purpose

Always make a test buttonhole on a sample of your fabric. Be sure to duplicate the thickness of the garment and include interfacing if appropriate.

BUTTONHOLE LENGTH

First decide how long the opening needs to be. This will depend on the diameter and thickness of the button. To find the right length, cut a small slit in a scrap of your fabric and gradually enlarge it until the button slips through easily. Then add at least 1/8 inch (1/16 inch for each bar tack), and mark the fabric as illustrated. This bar-tack measurement is approximate; on some buttonholes, you may need to increase it to arrive at pleasing proportions.

Marking Lines

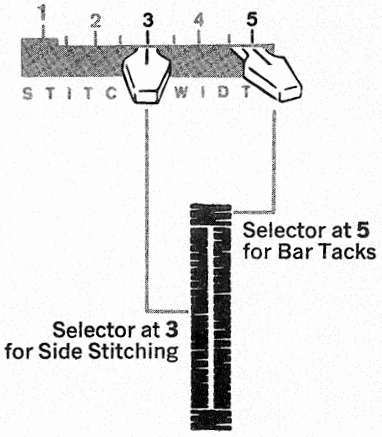


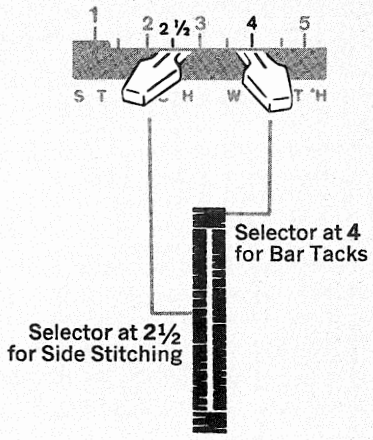
Length of Cutting Space

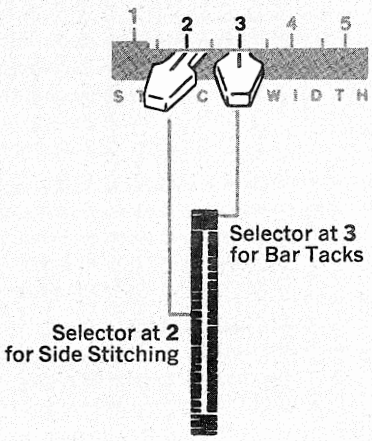
Bar Tacks and Side Stitching

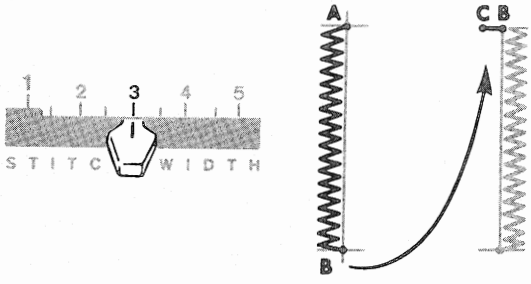
STITCH WIDTH SETTINGS

Next, determine the two stitch width settings that you will need: one for side stitching and one for the bar tacks (closings at the ends of buttonhole). The three possible combinations are shown below.





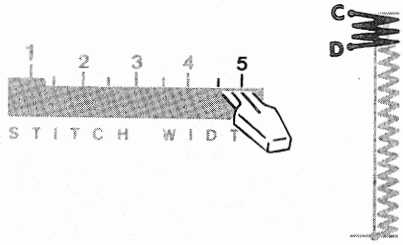




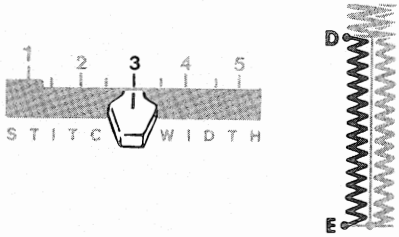
PROCEDURE

With Needle Position Selector at L, place Stitch Width Selector on setting desired for side stitching of buttonhole. Place work under needle, aligning center marking of buttonhole with slot in the presser foot.

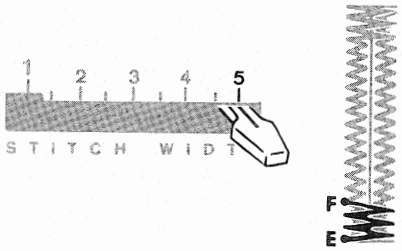
Side Stitching: Position needle in fabric at point A. Lower foot and stitch to end of marking. Leave needle in fabric at point B. Raise foot and pivot work on needle. Lower foot. Take one stitch without changing width setting, bringing work to point C.



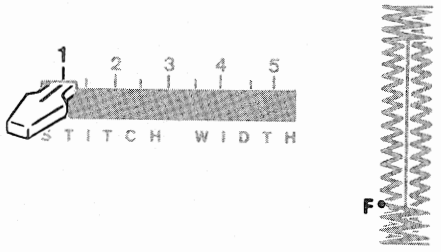
Bar Tack: Adjust Stitch Width Selector for bar tacks and take at least six stitches. Stop at point D.



Side Stitching: Readjust Stitch Width Selector for side stitching. Complete work to point E. Leave needle in fabric.



Final Bar Tack: Adjust Stitch Width Selector for bar tacks, and take at least six stitches *in reverse,* ending at point F.

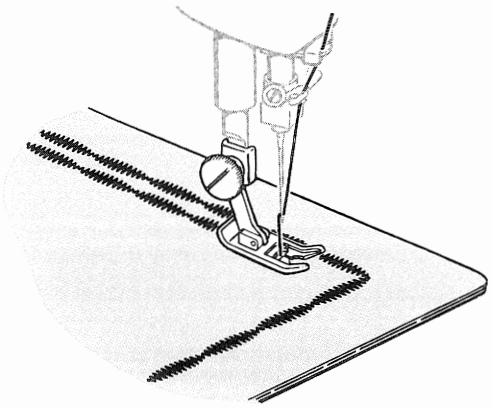


Fastening Stitch: To secure stitching, move Selector to 1 and take three stitches. Remove work, draw threads to underside, fasten and trim. Cut opening for button with sharp scissors.

8. FINISHING TOUCHES

top stitching

A practical, simple way to accent the lines of a dress or coat is to place one or more rows of stitching along collars, lapels, facing edges, pockets, sleeves, etc. For a tailored look, use lines of straight stitching. For decorative interest, use decorative stitching.



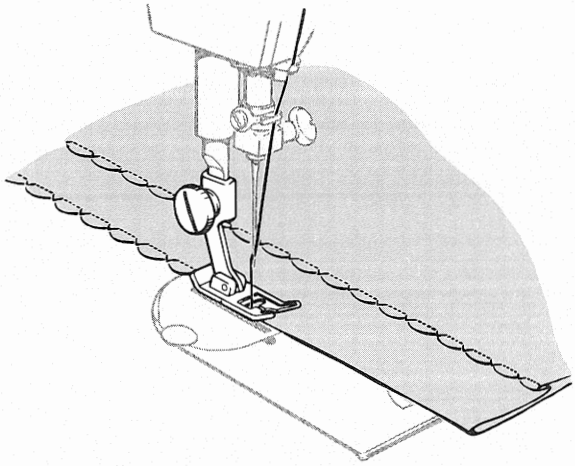
Top Stitching

shell edging

On soft, fine fabrics, shell edging makes an attractive finish for narrow hems or bias folds.

- Pattern Selector: Blindstitch (V⁻⁻V⁻⁻V⁻⁻)
- Needle Position: C
- Throth Plate: General Purpose
- Presser Foot: General Purpose

1. Make a test sample on your fabric to find the right thread tension, stitch length, and stitch width.
2. Place folded hem (basted, if necessary) or bias fold under presser foot, with hem or fold toward the left.
3. Stitch slowly, guiding fabric by hand so that the sideward stitches do not pierce the folded edge.



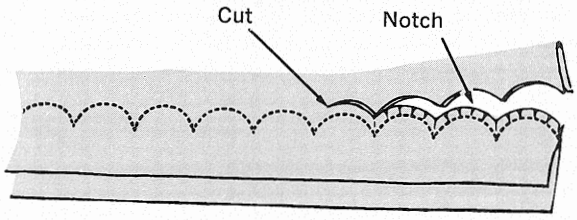
Shell Edging

scalloping

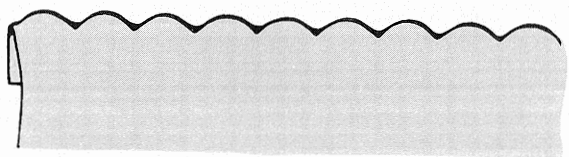
Scalloping adds interest to blouses, dresses, lingerie, and children's clothes. Scallops will be perfect in form and evenly spaced when you use the Scallop stitch.

- Pattern Selector: Scallop (⌒⌒⌒)
- Stitch Width Selector: 3 to 5
- Needle Position: C
- Stitch Length: 10 to 15
- Throat Plate: General Purpose
- Presser Foot: General Purpose

1. Place right sides of fabric together. (Shaped or bias edges should be interfaced.) Stitch scallops.
2. After stitching, and before turning, trim seam allowance to ⅛ inch or less.
3. With scissors, clip points of scallops and, if necessary to make fabric lie flat, clip along curves.
4. Turn and press.

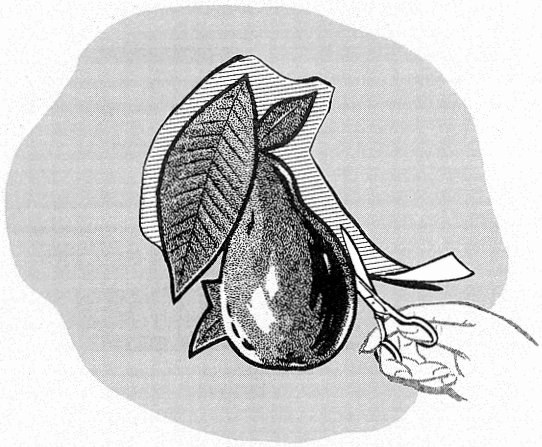


Wrong Side of Scallop

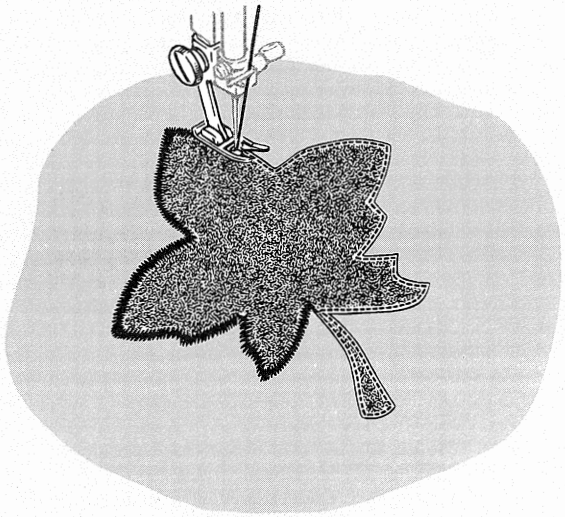


Right Side of Scallop

applique



Method #1 — Trimming after Stitching



Method #2 — Stitching after Trimming

Applique adds beauty and interest to clothes and household linens. Either contrasting or self fabric can be used effectively.

The stitch most commonly used in appliqueing is a closely spaced, plain zig-zag stitch. The width of this stitch can be varied to accommodate fabrics of different weaves and textures. Many of the other stitch patterns can also be used to applique with decorative stitching.

To prepare for appliqueing, make a sample to help you decide which of the following two methods is the more appropriate for your fabric and design.

- Position the design.
- Baste it to the fabric.
- Attach General Purpose Presser Foot (and General Purpose Throat Plate)

METHOD #1

1. Set Pattern Selector for the desired applique stitch pattern. Set Stitch Width Selector for the desired width, and set Stitch Length on **FINE** (above 20).
2. Outline the design with applique stitching.
3. Trim any excess fabric on the outer edges of the stitching. Remove basting.

METHOD #2

1. Adjust selectors for straight stitching.
   - Pattern Selector: Straight Stitch (---------)
   - Stitch Width Selector: 1
   - Needle Position: C
2. Outline the entire design with a short stitch.
3. Trim raw fabric edges to the stitching.
4. Set Pattern Selector for the desired applique stitch.
5. Adjust Stitch Width Selector to desired width setting for applique pattern. Set Stitch Length Selector on **FINE.**
6. Stitch, following the straight stitch outline. This step will produce a smooth overedged finish, with no raw edges to be trimmed. Remove basting.

monograms, motifs, script

Many of the decorative stitch patterns can be used for monograms or motifs — for adding a personal touch to a blouse collar, for example, or for initialing household linens. You can buy designs — or create them yourself.

MONOGRAMS AND MOTIFS

- Pattern Selector: for zig-zag stitching (WWWWWWWW) See page 5 for decorative stitches
- Stitch Width Selector: 2 through 5
- Needle Position: C
- Stitch Length: FINE (above 20)
- Throat Plate: General Purpose
- Presser Foot: General Purpose

1. Make a sample first, to determine suitability of stitch pattern and find the right stitch length and width, thread tension, and pressure.
2. Transfer the design (by tracing, usually) to the right side of the fabric.
3. If the fabric is soft or loosely woven, baste a backing of lawn or organdy onto the wrong side.
4. After stitching, trim the backing close to the stitching.

To Find the Beginning of the Pattern Unit

When you use decorative stitch patterns in a motif, always start stitching at the beginning of a pattern unit — that is, at the beginning of the pyramid, ball, or whatever pattern you are using. To find the beginning:

1. On a scrap of material, stitch until you come to the end of a complete pattern unit. Now you are ready to start stitching at the beginning of the next unit.
2. Raise presser foot and remove scrap.
3. Position motif under needle; lower presser foot; and stitch.

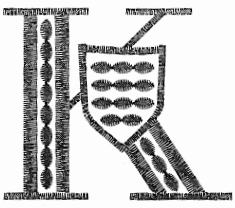
SCRIPT LETTERING

- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: 2 through 5
- Needle Position: C
- Stitch Length: FINE (above 20)
- Throat Plate: General Purpose (DARN position)
- Presser Foot: None

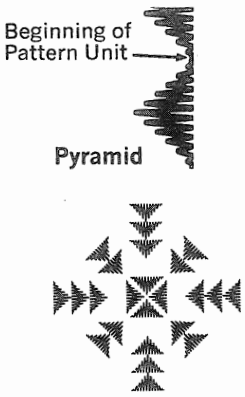
If you wish to embroider a whole name — on a child's dress or shirt, for example — you can do so by free-motion stitching.

1. Always make a sample first, to find the right stitch settings and spacing.
2. Trace or mark lettering on right side of fabric.
3. If the fabric is soft or loosely woven, add an underlay of crisp lawn or organdy.
4. Place work in embroidery hoop large enough to encompass the entire work design. Be sure fabric is held taut.
5. Position work under needle and lower presser bar to engage tension.
6. Turn hand wheel toward you to bring bobbin thread up through fabric at start of design and hold both threads to start stitching.
7. Stitch, following outline of lettering. Maintain an even rate of speed so that stitches are uniformly spaced.

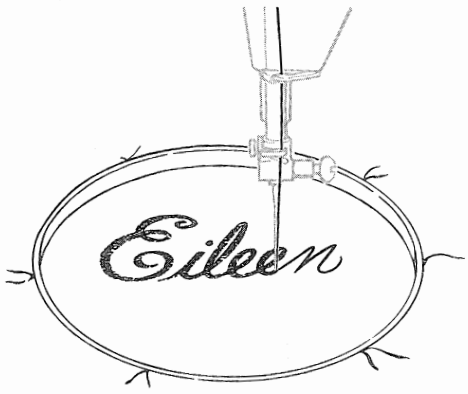
To produce a close stitch, move the hoop slowly; to produce an open stitch, move hoop more rapidly.
To shade the lettering, from wide to narrow stitching, turn the work slightly so that you will be moving it at an angle as you stitch.



Monogram in Zig-Zag and Ball Stitch



Pyramid Pattern Used in Motif



Script Lettering

flower embroidery

Whether you have artistic ability or not, with your *Touch & Sew* sewing machine and a little practice you will be able to embroider flowers on table linens, pillow covers, and other home decorations, as well as on dresses and blouses. If you have designing skill, you will enjoy creating your own patterns. Otherwise, you can buy attractive transfer patterns.

Flower Motif

- Pattern Selector: Zig-Zag (WWWWWWWW)
- Stitch Width Selector: **2** through **5**
- Needle Position: **C**
- Stitch Length: **FINE** (above **20**)
- Throat Plate: General Purpose (**DARN** position)
- Presser Foot: None

Prepare the machine and your fabric in the same way as for free-motion script lettering (page 47). On your test sample, try out different stitch width settings to determine the one or more best suited to your design.

Bar-Tack Design

When filling in outlines, place stitches in parallel lines, shifting the direction of the hoop movement as appropriate to the design. For a smooth satin stitch that will catch the light, place the parallel stitches close together, moving the hoop slowly and steadily. For an irregular texture, move the hoop more rapidly, allowing some stitches to overlap.

A series of bar tacks can be used to form spray-like leaves or flowers. This technique adds variety and lightness to many designs. Leaves and petals formed in this way may carry the thread from one bar tack to the next. The carrying thread eliminates tying of thread ends.

Flower, Leaf and Bud Design

9. KEEPING UP APPEARANCES

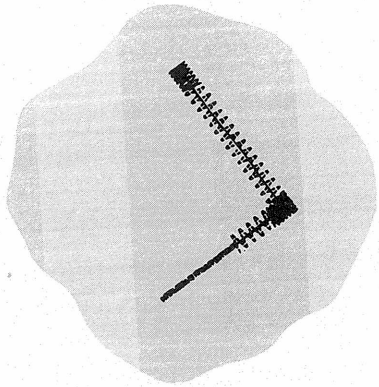
mending

Many of the zig-zag stitch settings are just as useful for mending as they are for creative sewing. The multi-stitch zig-zag ( ) forms a firm, flexible bond for repairing tears, for reinforcing or for replacing elastic. The plain zig-zag ( ) is useful for making bar tacks to repair lingerie.

TEARS

- Pattern Selector: Multi-Stitch Zig-Zag ( )
- Stitch Width Selector: 2 through 5
- Needle Position: C
- Throat Plate: General Purpose
- Presser Foot: General Purpose

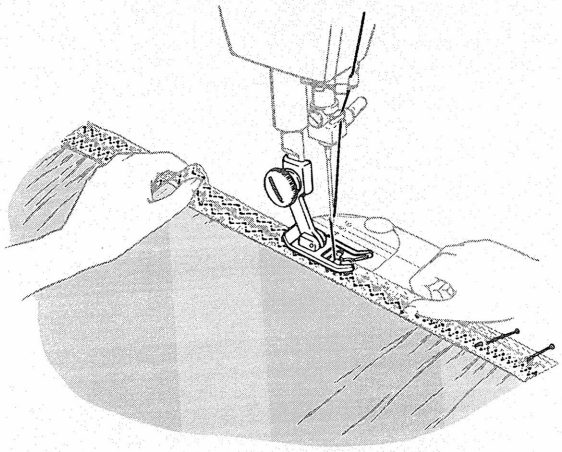
1. Trim ragged edges.
2. Place underlay on the wrong side of tear for reinforcement. (It is best not to baste or pin the underlay, since you will be bringing the edges of the tear together in the next step.)
3. Stitch on the right side, bringing the edges of the tear together.
4. Shorten stitch length at ends and corners to give extra strength.
5. Trim underlay.



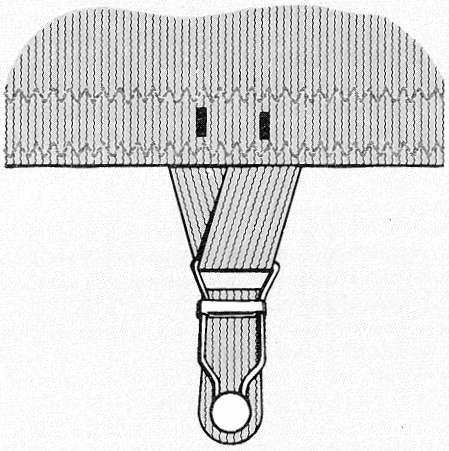
A Tear Mended with Multi-Stitch Zig-Zag

ELASTIC

1. Use the same selector settings and fittings as for "Tears", above.
2. Hold the elastic taut as you stitch so that it will remain stretchable after stitching is completed.



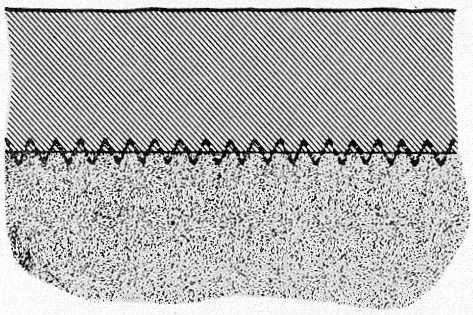
Replacing Elastic with Multi-Stitch Zig-Zag



Bar Tack

BAR TACKS

Use a closed zig-zag (WWWWWWWW) stitch to bar-tack garters, pockets, zippers, shoulder straps, etc.



Blanket Binding

blanket binding

Often you can make an old blanket look almost new by replacing the binding.

- Pattern Selector: Multi-Stitch Zig-Zag (/\/\/\/\ )
- Stitch Width Selector: **5**
- Needle Position: **C**
- Throat Plate: General Purpose
- Presser Foot: General Purpose

1. Remove worn binding.
2. Baste new binding securely.
3. Reduce pressure (on Pressure Dial) and increase stitch length if necessary, so that blanket feeds freely.
4. Stitch, and remove basting.

darning

Worn or torn spots on children's clothes, knits and household linens can be darned effortlessly and quickly with little practice. You may choose to darn either with or without an embroidery hoop. When greater control is needed, free-motion stitching, with an embroidery hoop, is usually best.

DARNING WITHOUT EMBROIDERY HOOP

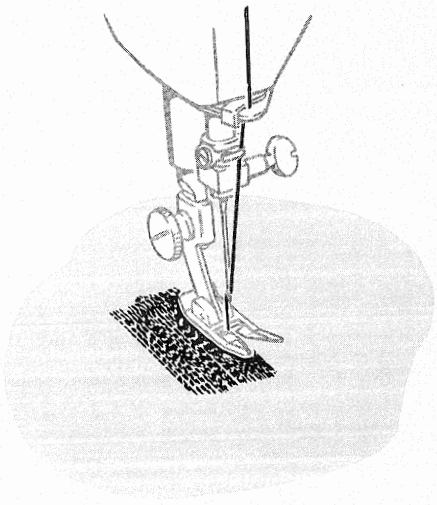
- Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: **1**
- Needle Position: **C**
- Stitch Length: **10** to **15**
- Throat Plate: General Purpose
- Presser Foot: General Purpose
- Pressure Dial: **DARN**

1. If area to be darned is open, baste an underlay in place.
2. Place area to be darned under presser foot.
3. Lower presser foot and start stitching, alternately drawing fabric toward you and pulling it *gently* away from you.
4. Continue this forward and backward motion as you fill the area with parallel lines of stitching.
5. For additional strength, cover area with crosswise lines of stitching.

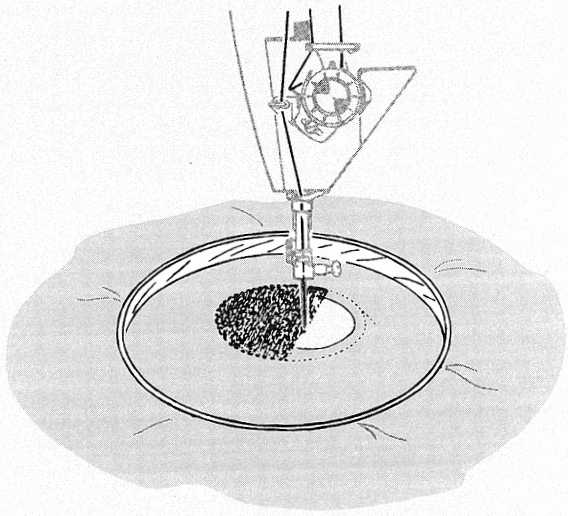
DARNING WITH EMBROIDERY HOOP

- Pattern Selector: Straight Stitch (---------)
- Stitch Width Selector: **1**
- Needle Position: **C**
- Stitch Length: **FINE** (above **20**)
- Throat Plate: Straight Stitch (**DARN** position)
- Presser Foot: None

1. Trim ragged edges from area to be darned.
2. Center worn section in embroidery hoop.
3. Position work under needle and lower presser bar to engage tension.
4. Hold needle thread loosely with left hand, turn hand wheel over and draw bobbin thread up through fabric. Hold both thread ends and lower needle into fabric.
5. Outline area to be darned with running stitches for reinforcement.
6. Stitch across opening, moving hoop under needle at a slight angle from lower left to upper right. Keep lines of stitching closely spaced and even in length.
7. When opening is filled, cover area with crosswise lines of stitching.

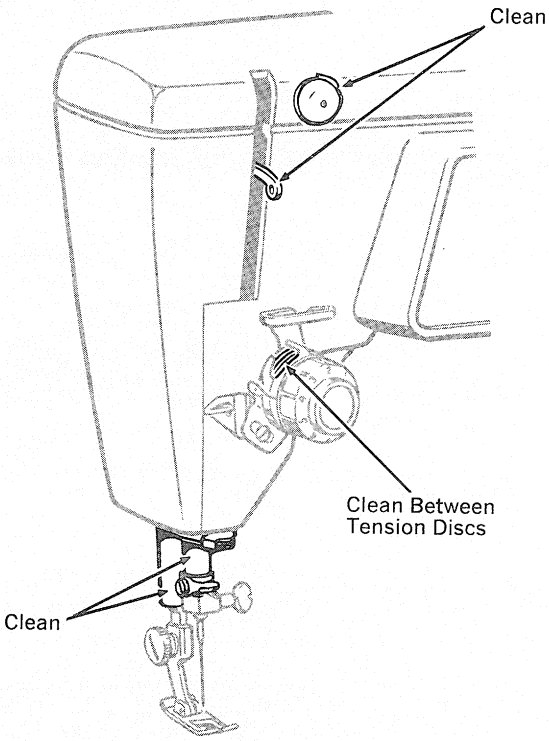


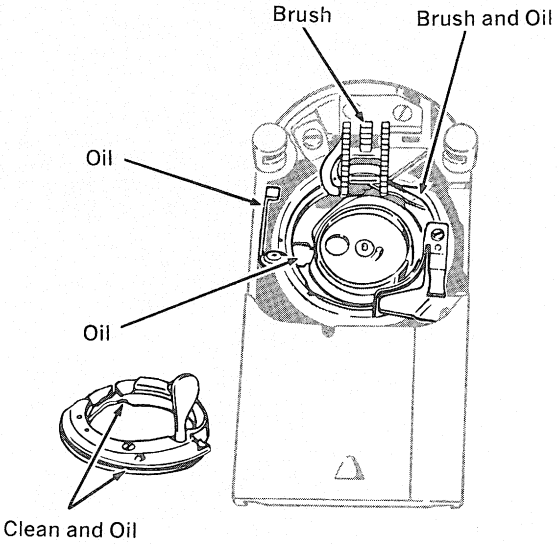
Darning without Embroidery Hoop



Darning with Embroidery Hoop

10. HOW TO TAKE CARE OF YOUR MACHINE





Your sewing machine is a fine yet sturdy precision instrument, and it will serve you perfectly for many years if you take a few simple steps to keep it in good working condition.

How often you will need to clean, oil, and lubricate the machine will depend on how often you use it and where you keep it. The following general guidelines assume that you will be sewing two or three times a week. But if you use the machine continuously, clean and oil it daily. Or, if you keep it in a very warm or damp place, oil and lubricate it more frequently than the guidelines suggest.

cleaning, oiling, lubricating

EVERY WEEK OR SO—

Remove lint or fluff from exposed parts. (As a matter of fact, you will be able to see the lint and fluff gathering on these parts, and we recommend that you remove them *immediately.*)

With a soft cloth, clean:

- Tension discs
- Take-up lever and thread guides
- Presser bar and needle bar
- Bobbin case (for instructions on removal, see next page)
- Machine arm and bed

If necessary, dampen the cloth to clean the machine surface. *Do not use detergents.*

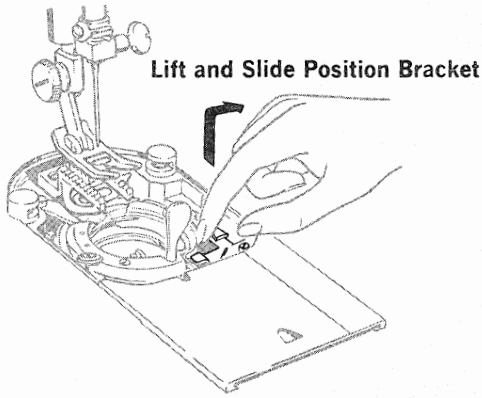
With the lint brush that comes with your machine, clean:

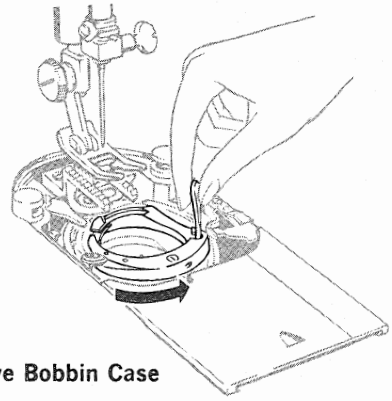
- Feed dog
- Rotating hook (area under throat plate and slide plate)

After each cleaning, apply a drop *(but no more than a drop)* of SINGER* Oil to the areas indicated. Then sew a line of stitching on a scrap of material to remove excess oil.

To Remove the Bobbin Case

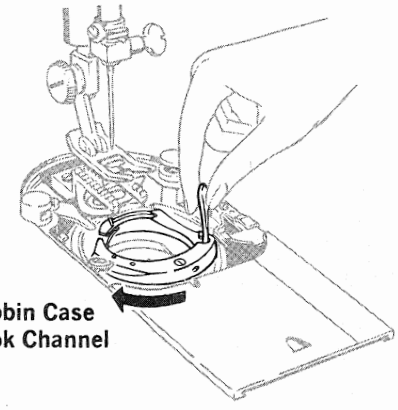
1. Open slide plate and remove throat plate (see page 15 for instructions).
2. Turn hand wheel to raise take-up lever to its highest point.
3. Remove bobbin. Keep bobbin push-button in sewing position.
4. To unlock bobbin case, lift position bracket (at right of case) and slide to right.
5. To remove bobbin case, hold latch, twist case to right, and lift it out.

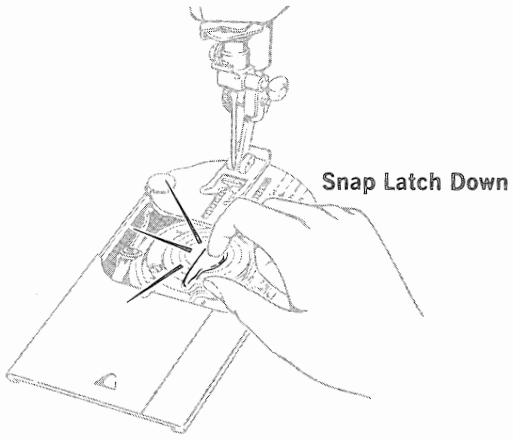


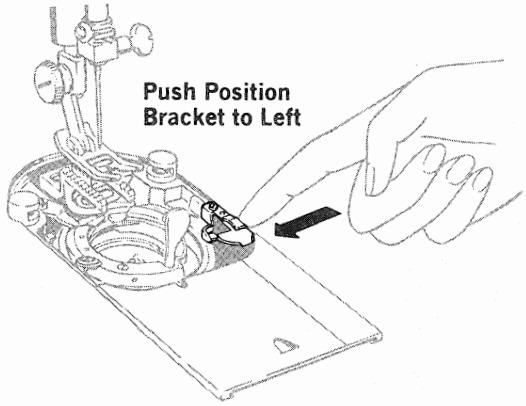

Remove Bobbin Case

To Replace the Bobbin Case

1. Turn hand wheel to raise take-up lever to its highest point. Keep bobbin push-button in sewing position.
2. Hold bobbin case by latch and, with latch to right of needle, slip case in position so that the groove engages hook channel.
3. Twist bobbin case to left until latch is in center.
4. Push position bracket to left until it snaps down, locking bobbin case in place.
5. Replace bobbin and snap latch down.
6. Replace throat plate and close slide plate.


Slip Bobbin Case into Hook Channel





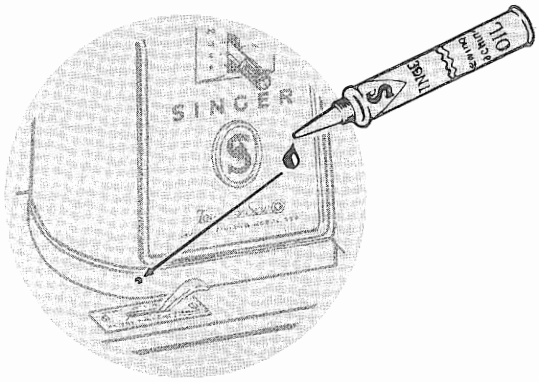
EVERY FEW MONTHS—
Clean and oil area behind face plate.

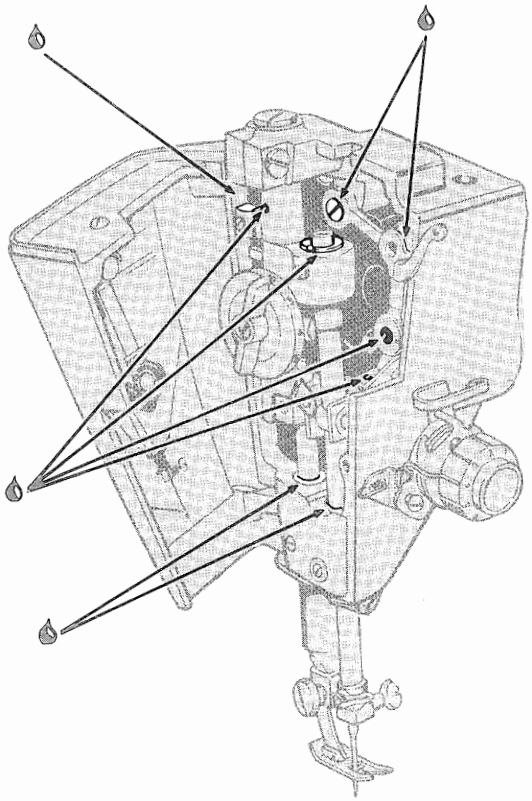
- You will find this easier to do if you remove the top cover first, as described below.

Place a drop of oil in the hole behind throat plate lever.

Oil and lubricate top of machine as shown on next page.

- After oiling, always sew a few lines of stitching on a scrap of material to remove excess oil.
- SINGER* Lubricant, as well as Oil, is available for purchase at your SINGER CENTER.

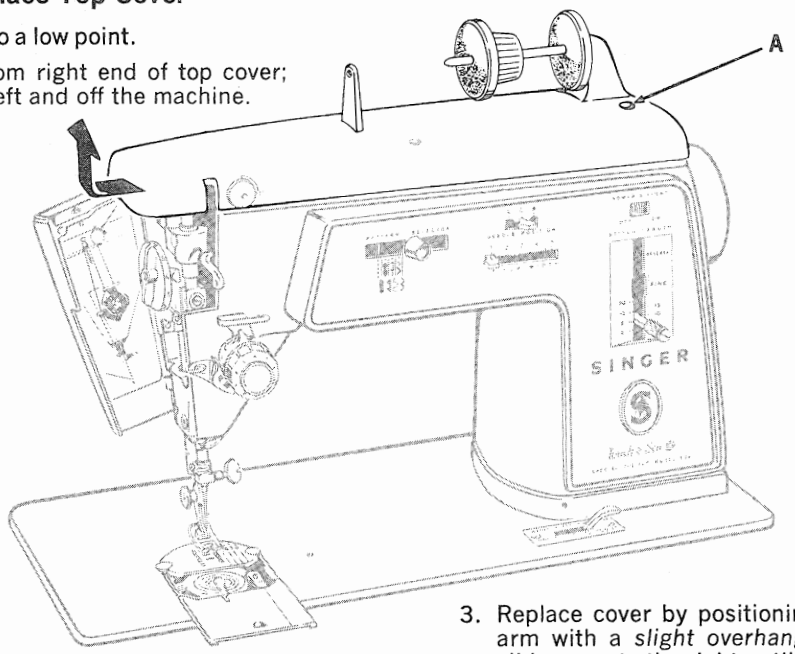




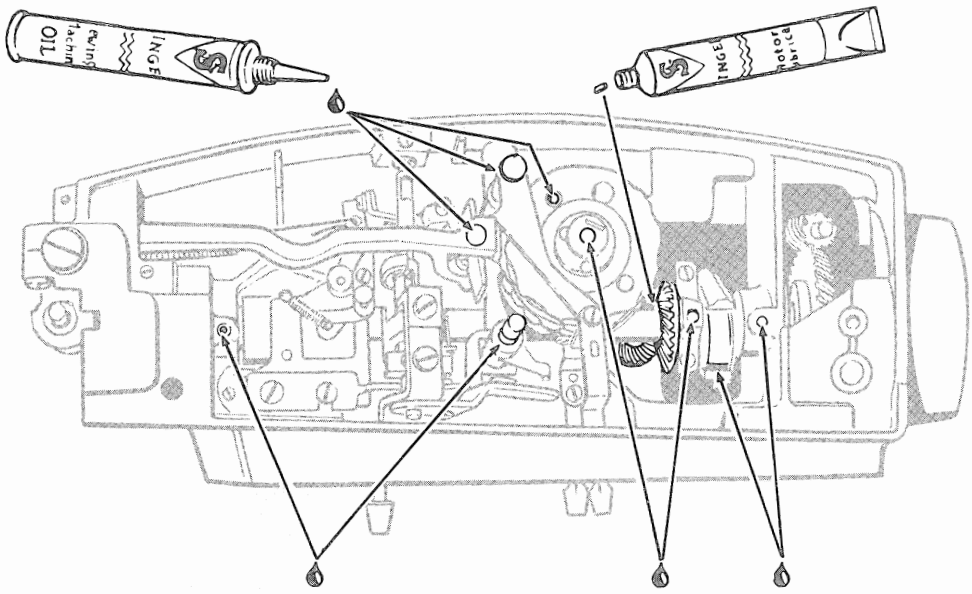
Apply a Drop of Oil to Each Spot Shown

To Remove and Replace Top Cover

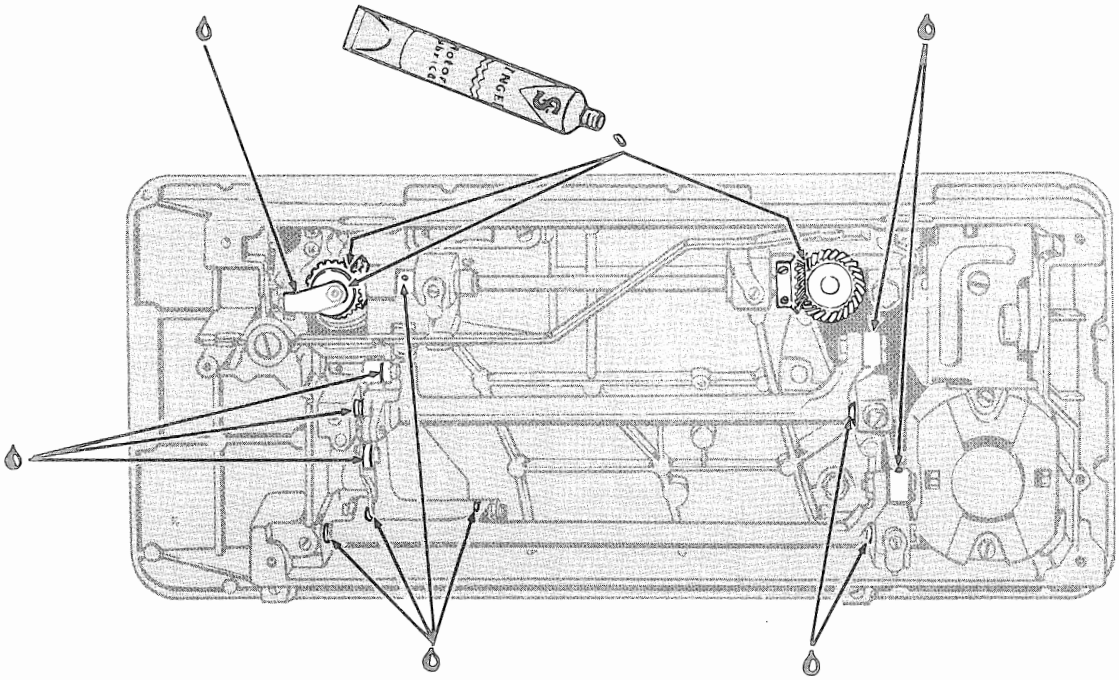
1. Move take-up lever to a low point.
2. Remove screw **A** from right end of top cover; slide cover toward left and off the machine.



3. Replace cover by positioning it on top of the arm with a *slight overhang on the left side;* slide cover to the right until it locks in place.
4. Replace and tighten screw **A**.



Oil and Lubricate Top of Machine



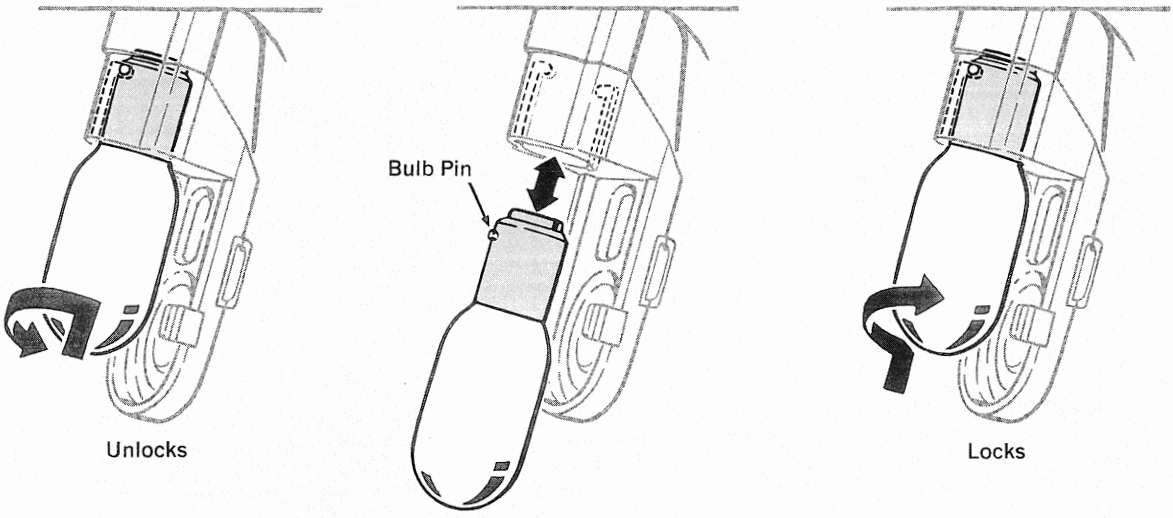
Oil and Lubricate Bottom of Machine

Oil and Lubricate Bottom of Machine

1. Disconnect plug from electrical outlet.
2. Tilt machine back and loosen screws from the four corners of the machine bed to remove bottom cover.
3. Apply SINGER Oil and SINGER Lubricant as shown.
4. Replace bottom cover.

IF THE MACHINE IS TO BE STORED

1. Disconnect electrical controller from machine and wall outlet.
2. Clean all exposed parts and area behind face plate.
3. Swab all exposed *metal* parts and parts behind face plate with lint brush saturated with SINGER Oil, to protect against rust.

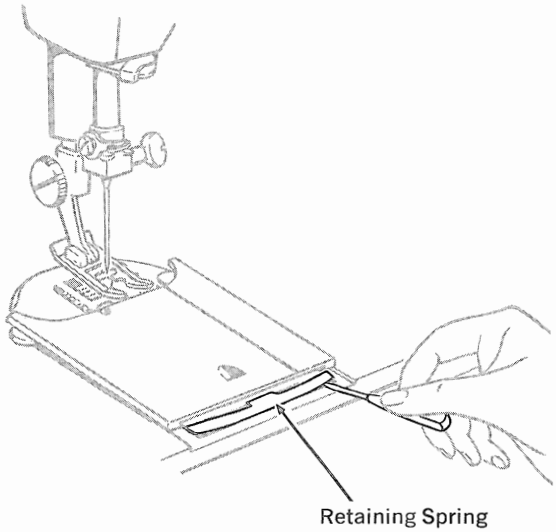


TO CHANGE THE LIGHT BULB

Be sure that Power and Light Switch is in OFF position.

To remove bulb: With thumb of right hand, push in and down on tab of light lens and lower the light bracket. *Do not attempt to unscrew the bulb.* Press it up into the socket and at the same time turn bulb over in direction shown to unlock bulb pin.

To replace bulb: Press new bulb into socket, with bulb pin entering slot of socket, and turn it over in direction shown to lock bulb in position. Push entire assembly up until it snaps in position.



TO REPLACE THE SLIDE PLATE

You will not have any occasion to remove the slide plate. However, if it should accidentally become disengaged from the machine, it is easily replaced.

- Raise the presser foot and the needle.
- Place slide plate in slide way with the front edge close to, but not covering, the retaining spring (as shown).
- With a small screwdriver, lift each end of the spring into each of the side grooves on the underside of the plate.
- Draw the plate gently toward you and fully engage the spring.
- Close slide plate.

PERFORMANCE CHECK LIST

Remember to

- Be sure Power and Light Switch is on
- Remove all thread from bobbin before rewinding
- Fill empty bobbin

. . . in center needle position with Stitch Width Selector on 1
. . . before fitting accessories to machine
. . . before inserting additional needle for two-needle work

- Close slide plate after winding bobbin
- Position needle out of fabric when making stitch width and stitch pattern adjustments
- Clear your machine of lint and fluff periodically and apply oil
- Use your Instruction Book. It was written to explain the most efficient way to operate and use this remarkable new machine

If threads breaks

- Is the machine properly threaded?
- Is the thread spool secured by the spool holder?
- Is the spool holder positioned correctly?
- Is a Catalog 2020 (15X1) needle correctly inserted and securely tightened in the needle clamp?
- Is the needle straight and sharp?
- Is the thread suitable for the size of the needle?
- Is the thread free of slubs and knots?
- Is the thread unwinding freely from the spool?
- Is the needle-thread tension too tight?
- Is the presser foot raised for bobbin winding?
- Is a moderate speed used for bobbin winding?
- Are the bobbin halves evenly and securely screwed together?
- Is the bobbin properly seated and secured by the latch in the bobbin case?
- Is the bobbin-case area free of lint and loose thread ends?
- Are the thread guides and tension discs also lint-free?

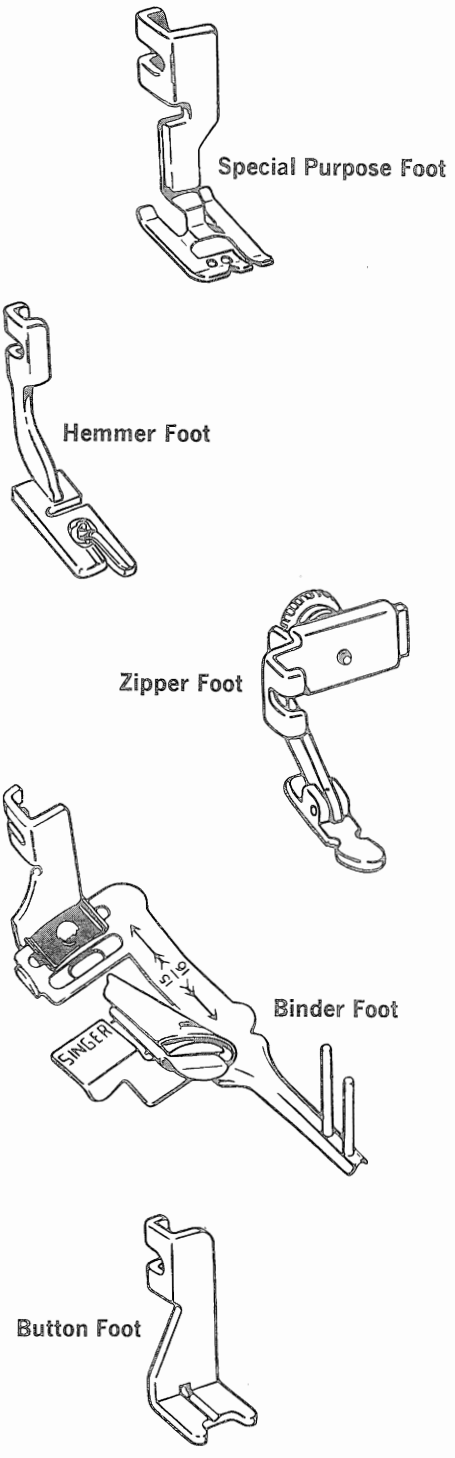
Enjoy sewing!

If you have any questions, please write to:

Department of Sewing Education
The Singer Company
30 Rockefeller Plaza, New York, N. Y. 10020

11. *FASHION* AIDS

special accessories for special jobs



These *Fashion** Aids have been especially designed to increase the versatility of your *Touch & Sew* sewing machine and enable you to give your sewing that extra professional touch. The ones described below are just a few of the complete selection available at your local SINGER CENTER.

SPECIAL PURPOSE FOOT — No. 163483

This light, flexible foot has a raised center section, which allows closely spaced zig-zag stitches to feed evenly. The small holes in the front hold a filler cord when that is desired. It is useful for ornamental stitching, making buttonholes, and for applique work.

HEMMER FOOT — No. 161780

The Hemmer Foot forms a perfectly turned narrow hem without basting or pressing.

ZIPPER FOOT — No. 161166

This foot makes it easy to place stitching close to a raised edge. Thus it is useful for corded seams as well as zipper insertion. It can be adjusted to either the right or left side of the needle; and the hinge allows it to ride over pins, heavy layers of fabric, or cross seams.

BINDER FOOT — No. 81200

The Binder Foot is used to apply ready-made bias tape or unfolded bias binding to an unfinished edge. Such a trim can form a colorful finish to children's clothes, aprons, and household linens. It can also be useful for binding seam edges that might ravel.

BUTTON FOOT — No. 161168

This short, open foot holds any two-hole or four-hole button securely for stitching. The groove in the foot can be used to hold a needle, over which a thread shank can be formed.

SEAM GUIDE

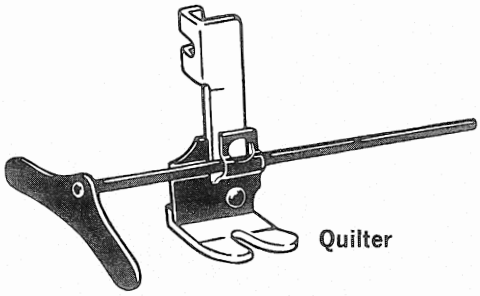
No. 161170

The Seam Guide helps keep seam width uniform when extra control is needed, especially on unusually wide or narrow seams.

QUILTER

No. 160691

The Quilter is excellent for the placement of straight stitching in block, floral, or scroll designs and is especially well adapted to stitching lightly padded materials. The short, open foot permits following curved lines with ease and accuracy; the adjustable space guide, placed to the right or left of the needle, keeps rows of stitching parallel.



GATHERING FOOT

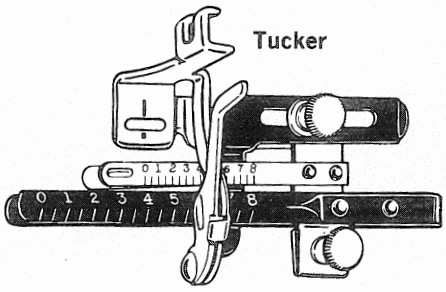
No. 161169

Designed to lock fullness into each stitch, the Gathering Foot can be used for shirring as well as for a single line of gathering. For evenly spaced shirring, simply keep the same stitch length and tension setting for all lines of stitching. This foot is used for straight stitching only.

TUCKER

No. 161226

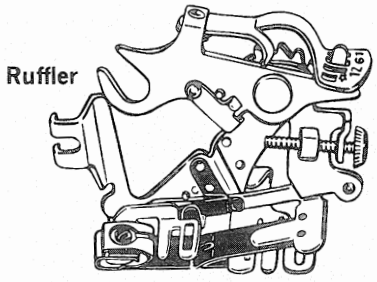
Since the beauty of tucking lies in perfect accuracy, the Tucker will contribute greatly to the attractiveness of this work. Tucks up to one inch can be stitched and marked in one operation. Two adjustable scales are provided to gauge tuck width and spacing. Either a straight or decorative stitch setting may be used.



RUFFLER

No. 161561

This accessory offers a simple, effective way to make gathered and pleated ruffles. Ruffles can be made separately or made and applied at the same time. The Ruffler is used for straight stitching only.



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SINGER
GUARANTEE

WE GUARANTEE that each SINGER* sewing machine has been carefully manufactured and is in perfect operating condition on delivery. When subject to normal family use and care, any parts requiring replacement at any time owing to defects in material or workmanship will be replaced without charge.

THIS GUARANTEE does not apply to parts requiring replacement owing to natural wear or to abuse or negligence of the user or in the event the machine is serviced by other than a SINGER representative or Approved Dealer or with parts other than those supplied by The Singer Company.

IN ADDITION to the above guarantee of parts, each machine will be inspected and adjusted whenever necessary without charge for labor for a period of one year from date of purchase.

THIS GUARANTEE is effective only with respect to the person making the purchase from The Singer Company or one of its Approved Dealers. The original Sales Agreement, or Cash Receipt, must be presented to obtain the benefits of the guarantee.

AGREEMENTS inconsistent with the foregoing shall be void and of no effect.

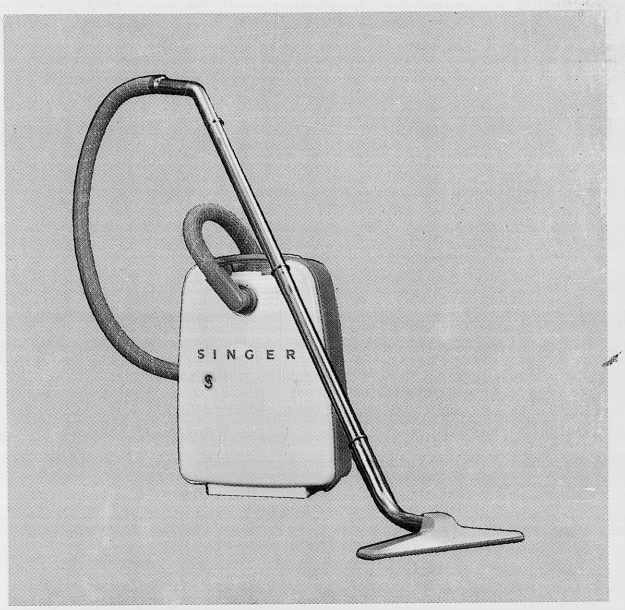
THE SINGER COMPANY

Exciting products from SINGER

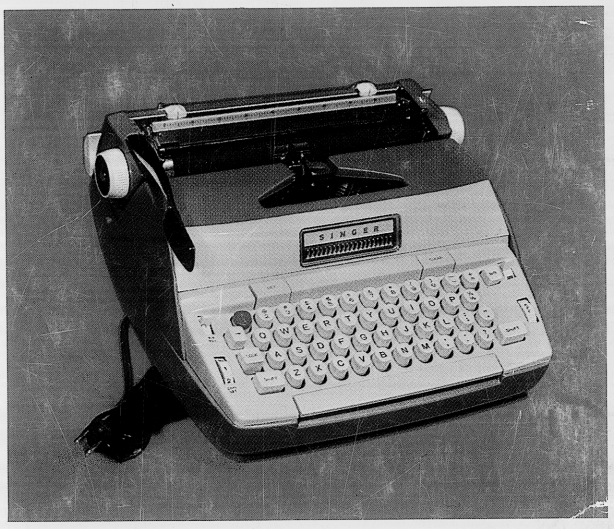
At your local SINGER CENTER you will find—

An outstanding selection of home entertainment products, including transistor radios, TV sets, stereo phonographs, and records. Shown here is a FREQUENCY CONTOURED* compact stereo phonograph by SINGER. Two balanced speakers give rich, true tone. Fully transistorized. In beautiful oiled-walnut finish.

A full line of floor-care products, including upright and hand models, as well as rug-cleaner/floor-polishers. The Power Master Canister by SINGER is shown here. With this deluxe cleaner, you simply step on a toe switch to rewind the cord or turn the cleaner on or off. Just lift cover to select cleaning attachment or replace huge dust bag. Stands on end for stair-cleaning or storage.



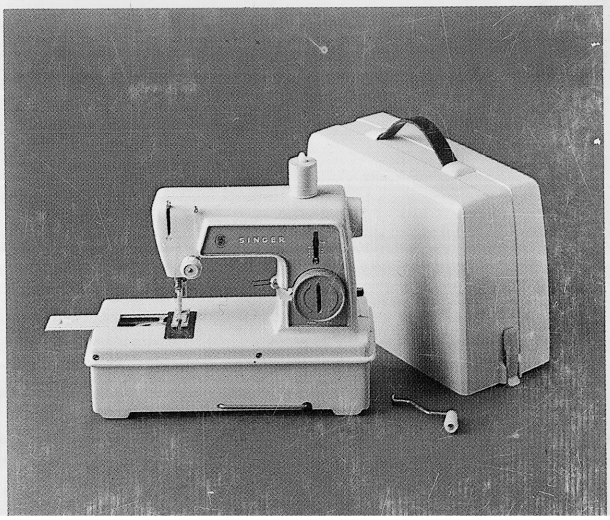
A wide variety of typewriters, ranging from extremely lightweight student models to the finest of portable electrics for the home. This Electric Portable Typewriter by SINGER features a touch selector, for adjusting the machine to the user's personal touch; an impression-control dial for producing multiple copies; and repeat action keys for easy underlining and crossing out. Snap-on Type for producing scientific or foreign-language symbols is also available.



Everything you need to make your sewing easy and enjoyable. Many SINGER CENTERS carry fine fabrics as well as dress forms and a complete line of notions. The children in your family will enjoy sewing, too, with this Child's Sewing Machine by SINGER. Battery-operated, it can be used anywhere—or, with an adapter, it can be operated electrically. It has a real bobbin and produces a true lockstitch.

THE SINGER COMPANY

Sewing Machines
Fabrics
Stereo Phonographs
TV Sets
Typewriters
Floor-Care Products



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